

BUSINESS WEEK

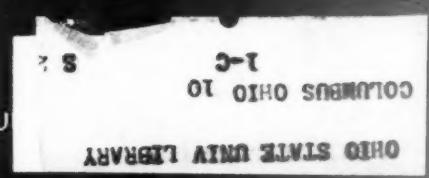
NOV. 16, 1946



This is a "contract carrier" (Earl Slick, of Fort Worth — where the contract carriers' case comes up next week)

BUSINESS
WEEK
INDEX

TWENTY CENTS · PUBLISHED BY THE McGRAW-HILL PU





A NEW INDISPENSABLE

Here is the first new addition to the famous Revere Ware line—the Revere Ware Pressure Cooker. It is the only pressure cooker made of stainless steel, copper-clad.

Introduced after several years of engineering, designing and research, this new indispensable for the home offers still another example of Revere's superior metallurgical knowledge and manufacturing skill. It eliminates all complicated gadgets. It is so simple to use that a child can open or close it. It is easy to clean and beautiful to look at. It eliminates dirt catchers by providing smoothly rounded corners everywhere . . .

In fact, it is just as great an advance over the products on the market at present as the Revere Ware line was over previous cooking utensils.

FOR THE HOUSEHOLD...

What we have done for ourselves, we can do for others. Unseen, but unfailing, Revere copper and its alloys are working now in refrigerators, automobiles, oil burners as well as in the giant machines of industry. In literally hundreds of cases we have helped manufacturers solve difficult problems that required technical research or wide familiarity with industrial production routines. We are proud of our plants, proud of our men, proud of the superior metals they produce which enable us to achieve such worthwhile results.

Listen to *Exploring the Unknown* on the Mutual Network every Sunday evening, 9 to 9:30 p.m., EST.

REVERE COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801
230 Park Avenue, New York 17, New York





HOW 188 COMPANIES IN 56 INDUSTRIES Solved the 8 Key Retirement Plan Problems

A Valuable Guide in Considering a New Plan or a Change in Your Present Plan

This new booklet provides you with a quick, simple method of applying the experience of others to your retirement plan problem. It gives you basic facts about 188 up-to-date plans now in successful operation in 56 industries. It shows you how each company solved the eight key retirement plan problems. You will find it a valuable guide if you are considering a new plan, or bringing your present plan up-to-date. Specific facts are presented in tabular form for easy comparison and quick reading.

Write for Your Copy Today

Without any obligation, write for your copy of *188 Retirement Plans* today — address Pension Division, Bankers Trust Company, 16 Wall Street, New York 15. Or, attach this advertisement to your business letterhead and send it in. Your copy will be mailed to you promptly.

WHAT THIS BOOKLET CONTAINS

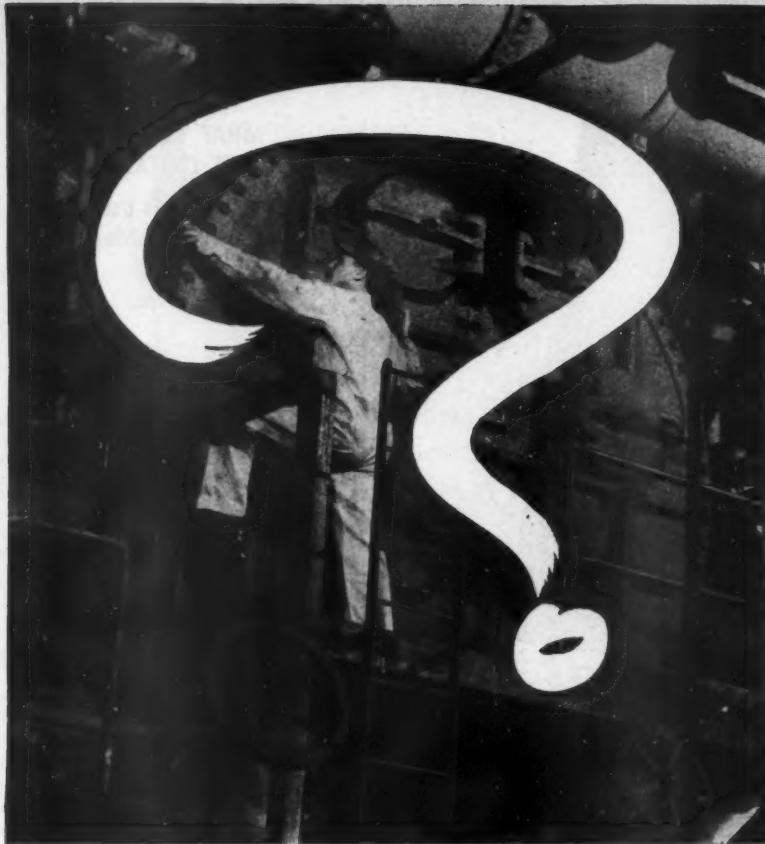
Analysis of Plans Used in these 56 Industries

Air Conditioning
Asphalt, Asbestos and
Felt Products
Automobile
Baking
Business Equipment
Chemical
Clothing Manufacturing
Coal Mining
Consumer Credit
Dairy
Department Store
Distilling
Drug
Electrical Equipment
Farm Co-operative
Farm Equipment
Fertilizer
Food Products
Glass
Grocery (Chain)
Household Appliance
Insurance
Investment
Leather
Lumber
Machinery (Heavy)
Machine Tool
Mail Order
Meat Packing
Milling
Motion Pictures
Natural Gas
Non-ferrous Metals
Optical
Paper
Petroleum
Petroleum Equipment
Printing and Engraving
Public Utility
Publishing
Radio
Railroad
Railroad Equipment
Refractories
Restaurant (Chain)
Shipbuilding
Shoe (Chain)
Soap
Steel
Sugar
Textile
Tire and Rubber Products
Tobacco
Traction
Variety Chain Stores
Watch

BANKERS TRUST COMPANY

NEW YORK

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION



Are your power units ASSETS OR LIABILITIES?

SHOULD you paint a question-mark on some of your power equipment? The answer is probably "yes" if it was pushed as hard as were most such units during the hectic war years. For that sort of service, with little time out for maintenance, may have developed dangerous conditions which will lead to trouble unless found and corrected.

This would be a particularly bad time to have a major accident to power equipment. It could mean loss of orders and loss of a concern's competitive position in the biggest "sellers' market" for years.

You can get help in erasing those question-marks from your machines and from your mind. More manufacturers than ever are turning to the protection afforded by Hartford Steam Boiler's insurance and the

accompanying engineering service. The Company inspects periodically and thoroughly each piece of power equipment it insures.

Hartford Steam Boiler's unique facilities are based upon 80 years of specializing in one highly exacting line. Its field engineers comprise the country's largest staff devoted solely to power-equipment protection. Its engineering advice has often added years to the useful life of costly installations.

Such advantages have put Hartford Steam Boiler out in front among those who purchase power-equipment insurance. Ask your agent or broker how the Company can help keep your power equipment on the profit side of the ledger.



The Hartford Steam Boiler Inspection and Insurance Company
HARTFORD, CONNECTICUT

Covers: Boilers • Pressure Vessels • Steam, Gas and Diesel Engines • Turbines • Electrical Equipment

BUSINESS WEEK

Aviation	42
Business Abroad	109
Finance	76
The International Outlook	107
Labor	86
Marketing	50
The Markets	114
New Products	68
The Outlook	9
Production	64
Readers Report	36
The Trend	116
Washington Bulletin	5

EDITOR
Ralph Smith

EXECUTIVE EDITOR
Kenneth Kramer

MANAGING EDITOR
Edgar A. Grunwald

Assistant Managing Editor, Harry Lee Waddell • News Editors, Gordon A. Ewing, Henry R. Lamar, Richard M. Machol • Illustration, Raymond A. Dodd

DEPARTMENT EDITORS

Foreign, John F. Chapman • Business Policy, John L. Cobb • Law, Joseph A. Gerardi • Finance, William McKee Gillingham • Marketing, Donald J. Lehman • Outlook, Clark R. Pace • Labor, Merlin S. Fitzle • Production, John Sasso • Industry, James M. Sutherland

EDITORIAL ASSISTANTS

Cora Carter, Brownlee Haydon (Assistant Foreign Editor), John Hoffman, James C. Nelson, Jr., Mary Richards (Assistant Marketing Editor), Arthur Richter, Margaret Timmerman, Edward T. Townsend (Assistant Labor Editor), Doris I. White • Statistician, Bram Cavin • Librarian, Patricia Burke

ECONOMICS STAFF

Dexter M. Keezer, Sanford S. Parker, William F. Butler, John D. Wilson

DOMESTIC NEWS SERVICE

Chicago Bureau, Arthur Van Vlissingen, Mary B. Stephenson • Cleveland Bureau, Robert E. Cochran • Detroit Bureau, Stanley H. Brana • San Francisco Bureau, Richard Lamb • Washington Bureau, Donald D. Hogate, Irvin D. Foos, George Doying, Malcolm Burton, A. N. Carter, Robert B. Colborn, Carter Field, Joseph Gambatese, John Hightower, Paul Leach, Jr., Gladys Montgomery, Blaine Stubblefield, William B. Whichard, Jr., Shirley Wolfel • Correspondents: Akron, Atlanta, Baltimore, Bangor, Birmingham, Boston, Buffalo, Charlotte, Cincinnati, Dallas, Denver, Helena, Houston, Indianapolis, Kansas City, Knoxville, Los Angeles, Louisville, Madison, Memphis, Miami, Minneapolis, New Orleans, Oklahoma City, Omaha, Philadelphia, Pittsburgh, Portland, Richmond, Rochester, Salt Lake City, Seattle, Spokane, St. Louis, Topeka, Tucson, Wilmington, Fairbanks (Alaska), San Juan (P.R.), Honolulu (T.H.), and 22 other cities

FOREIGN NEWS SERVICE

Director, John F. Chapman • London Bureau, Howard Whidden, Frederick Brewster • Paris Bureau, Michael Marsh • Berlin Bureau, John Christie • Prague Bureau, Frank E. Frank • Moscow Bureau, Robert Magidoff • Shanghai Bureau, A. W. Jessup • Bombay Bureau, Joseph Van Denburg • Mexico City Bureau, Ernest Hediger • Ottawa Bureau, Frank Flaherty • Correspondents: Amsterdam, Bangkok, Batavia, Bogota, Buenos Aires, Cairo, Caracas, Copenhagen, Halifax, Johannesburg, La Paz, Lima, Manila, Melbourne, Milan, Montevideo, Montreal, Ottawa, Rio de Janeiro, São Paulo, Santiago, Stockholm, Tokyo, Toronto, Vancouver, Vienna, Winnipeg.

PUBLISHER
Paul Montgomery

ADVERTISING MANAGER
H. C. Sturm

BUSINESS WEEK • NOVEMBER 16 • NUMBER 898
(with which are combined *The Analyst* and *The Magazine of Business*) • Published weekly by McGraw-Hill Publishing Company, Inc. James H. McGraw, Founder and Honorary Chairman • Publication Office, 99-129 North Broadway, Albany 1, N. Y. Editorial and Executive Offices, 330 W. 42nd St., New York 18 • James H. McGraw, Jr., President; Curtis W. McGraw, Senior Vice-President and General Manager; Nelson Bond, Director of Advertising; Eugene Duffield, Editorial Assistant to the President; Joseph A. Gerardi, Secretary • Address correspondence regarding subscriptions to J. E. Blackburn, Jr., Director of Circulation, *Business Week*, 99-129 N. Broadway, Albany 1, N. Y. or 310 West 42nd St., New York 18. Allow ten days for change of address. Subscription rates — United States and possessions \$5.00 a year, Canada \$6.00 a year, Pan American countries \$10 a year. All other countries \$20 a year • Entered as second class matter Dec. 4, 1936, at the Post Office at Albany, N. Y., under Act of Mar. 3, 1893. Return post office guaranteed • Copyright 1946 by McGraw-Hill Publishing Company, Inc. — All rights Reserved.



A LOT OF TELEPHONE SERVICE
FOR A LOT OF PEOPLE

WE'VE added about 3,000,000 new telephones so far this year — more than twice as many as ever before.

That's one reason why local telephone calls are up 25,000,000 *a day* over last year. Long Distance calls have more than doubled since before the war.

We're doing some fast stepping to meet your needs, in spite of shortages of materials.

Best of all, service has remained good on most calls, despite the large increase in the use of the telephone. There are some delays, but we'll be taking care of all of them just as soon as additional equipment can be made and installed.

BELL TELEPHONE SYSTEM



Now it's fly swatters made from GEON ...

... What will they think of next?

AN enterprising mid-Westerner had heard about GEON raw materials and the many things that could be made from them. So, he asked himself, why not fly swatters? Products made from GEON, he knew, resist oils and chemicals, sunlight, aging, repeated impact, abrasion, and many other normally destructive factors. They keep their shape indefinitely. They can be brilliantly or delicately colored. They can be waterproof and, so, easily washed. And GEON can be compression molded or injection molded, extruded, calendered or cast into sheet and film.

Samples were made and tested. The initial order was for 300,000 swatters, called Odor-Swat, the King of Swats, made from GEON. These swatters are going to make a good many impressions—on unsuspecting flies—this summer and for years to come.

It may seem a far cry from fly swatters to delicate film for the packaging field—or from dainty make-up capes to linings for acid tanks—from car upholstery material to insulation for wire and cable. But that's the way GEON is; versatile, easy to process, with applications—established and potential—in literally every field.

For more information about GEON raw materials and what can be done with them please write Department B-12, B. F. Goodrich Chemical Company, Rose Building, Cleveland 15, Ohio. In Canada: Kitchener, Ontario.

Geon
Polyvinyl Materials



Here are a few applications for GEON suggested by the unusual properties of the fly swatter

Textile coatings for rainwear, awnings, industrial aprons. Calendered, embossed sheet for upholstery and luggage. Calendered or molded sheet for flooring, shoe soles, shower mats. Paper coatings or film for packaging, wall covering. Extruded wire and cable insulation.

Photo courtesy The Odor-Swat Co., Brecksville, Ohio

B. F. Goodrich Chemical Company

A DIVISION OF
THE B. F. GOODRICH COMPANY

W
G.O.

they
publ
what
conte
ate.
in th
kind
olve
lic b

A
some
the S
ing b

Va
pore
cher
Rela
who
agre
the .
26'4"

Ta
com
floor
cipit
date
Who
can
of M
floor
cept
teres
nan

B
enti
sent
lead

Hou

T
h
won
Jo
but
Lead
who
gres
wha
ord,
fact
Brov
from

TA

V
is t
brin
earl
cam
ing.

D
may

BUS

UMI

WASHINGTON BULLETIN

G.O.P.'S INTERNAL FINESSE

With a characteristic finesse that they haven't lost in 14 lean years, Republican leaders have quietly mediated what threatened to be an unseemly contest over organization of the Senate. With three presidential candidates in the upper house, the party faced the kind of trouble that would have involved less-skilled politicians in a public brawl.

A few long-distance phone calls and some private conversations have settled the Senate organization on the following basis:

Vandenberg to be president pro tempore. In order to give him also the cherished chairmanship of the Foreign Relations Committee, Arthur Capper, who outranks him, steps aside and agrees to accept the chairmanship of the Agriculture Committee (BW-Oct. 26 '46, p15).

Taft to head the Republican steering committee. Taft's ambitions for the floor leadership had threatened to precipitate a pre-1948 battle of the candidates, but he was induced by Sen. Wherry, who will continue as Republican whip, to defer to Wallace White of Maine. White has been minority floor leader, which makes him an acceptable compromise. Taft, whose interests are fiscal, will also head the Finance Committee.

Bricker, as a freshman senator, isn't entitled to any preferment and presented no problem to the Republican leadership.

House Leadership

The Republican line-up in the House hasn't yet been settled, but the issue won't be allowed to cause a floor fight.

Joe Martin, of course, will be speaker, but the floor leadership is in dispute. Leading candidate is Charles Halleck, who has headed the Republican congressional campaign committee. Somewhat handicapped by a pro-Willkie record, his position is improved by the fact that his two opponents, Clarence Brown and Thomas Jenkins, are both from Ohio.

TAX OUTLOOK

While the organization of Congress is taking shape, the Republicans are bringing their legislative ideas down to earth, making a graceful descent from campaign oratory to practical law-writing.

Despite campaign appearances, taxes may not become a partisan issue. The

budget-thinking of President Truman and Republican leaders has moved closer together (page 28). Although Truman still talks of applying budget savings to debt reduction, imminence of a deflation threat early next year may change his tune.

A few Republicans in key spots, meanwhile, are walking away from an immediate 20% cut in taxes on 1947 personal income. Pitch now looks like a smaller percentage cut which, with some increase in exemptions, would amount to about 10%. The other 10% would be saved for 1948 as election ammunition and to sugarcoat a reduction in corporation and upper-bracket rates.

FOR LABOR: MODERATION

No drastic antiunion legislation is in sight. Except on the extreme right-wing, Republicans are cautious, unwilling to throw the 1948 labor vote back into Truman's lap. The weight of Republican opinion, represented by Ball and Taft, looks toward a quick and extremely mild mediation-and-cooling-off bill that the President could sign without embarrassment.

Right behind it would be a measure going no farther than last year's vetoed Case bill—banning secondary boycotts of goods made by rival unions or by nonunion workers, penalizing labor or management violations of collective bargaining contracts, and denying Wagner Act rights to foremen's unions. Ball and Taft are confident that Truman will sign this bill, too.

Ball and his friends are still groping

Coal Maneuver

In the coal crisis, the government was groping at midweek for means of reconciling John L. Lewis' demands for higher wages and shorter hours with its own desires to prevent a strike and rid itself of mine operation. It hoped the mine owners could make their own contract with the United Mine Workers. This would both avert a strike and permit return of the mines to their owners.

Time, however, worked against the first objective, unless the government could convince Lewis that he can't terminate the government agreement—which would mean a strike next Wednesday—as Lewis has claimed.

for a practicable method of coping with industry-wide strikes which can cripple the economy.

No legislation banning the closed shop, compelling arbitration, or fundamentally changing the Wagner Act will be pushed this side of the 1948 elections.

FOREIGN TRADE ISSUE

Foreign trade relations may turn out to be one of the bitterest partisan issues of the 80th Congress. The fundamental question is how the last big capitalistic state can do business with a world in which many parts are Communist or Socialist.

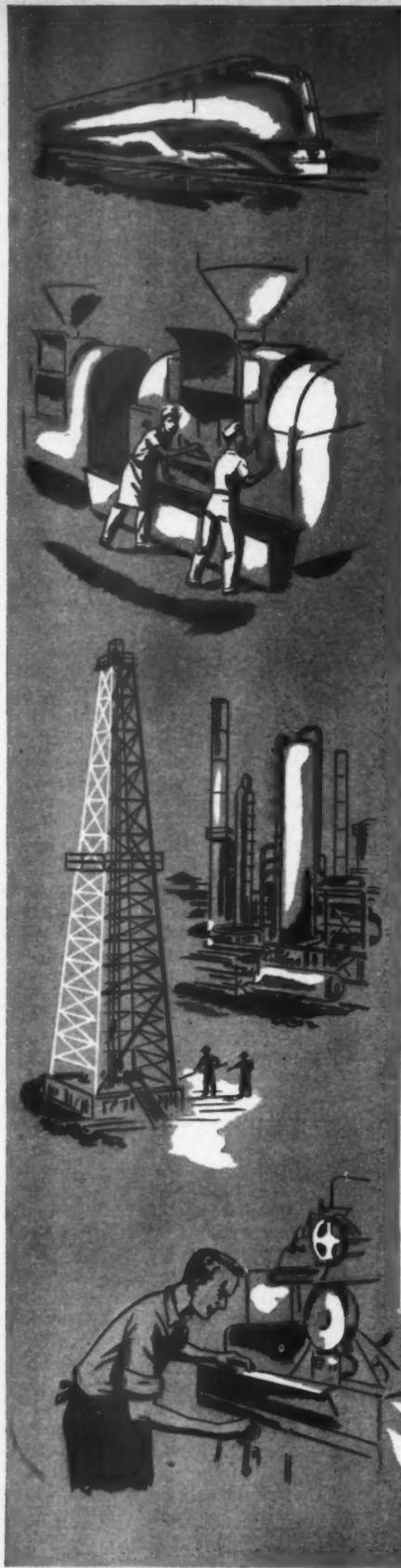
The Administration's answer lies in commodity agreements negotiated between governments within the framework of the International Trade Organization now in process of formation (BW-Sep. 21 '46, p107). When the ITO agreement comes before Congress for approval next year, the Republicans may be led by their traditional high tariff position, and their distrust of government intervention in business, to plump for the alternative solution—a maximum degree of national economic self-sufficiency.

Even though the ITO organization itself is formally approved, Republicans may attach to it a requirement for congressional approval of tariff reductions under the Hull reciprocal trade agreement program. This would cut in front of a block of postwar trade agreements to be negotiated with 18 nations next year; these agreements would otherwise get under the wire before the 1948 expiration of the reciprocal trade law.

SCUTTLING CONTROLS

Wartime controls, one of the hottest issues of the past campaign, won't cut much ice in the next Congress. Even before Congress convenes, President Truman and OWMR Director John R. Steelman are interpreting the election returns as a mandate to scuttle most of the Administration's own postwar program of reconversion controls. Having swept away price control, the most widely irritating regulation, the White House is now sifting CPA and RFC controls over basic materials, figuring out how little they absolutely have to retain.

The import subsidy programs—under which RFC bought key materials abroad, most importantly nonferrous metals, and took a loss selling them at



Yours for the asking...

Counsel and Data on Alloys Containing Nickel

FOR MANY YEARS representatives of International Nickel have collaborated with production men and metallurgists throughout industry furnishing technical assistance on a wide range of metal problems.

In this manner, the INCO technical staff has contributed to developments that have brought to mass markets many of the products and services which have vastly improved our way of living.

International Nickel looks forward to even greater opportunities for service in the years that lie ahead... years that should bring forth higher standards of living: the realization of new concepts of communication, of transportation, of public health... higher levels of production and performance, in manufacture and in the process industries.

Over the years, International Nickel has accumulated a fund of useful information on the selection, fabrication, treatment and performance of alloys containing Nickel. This information and data are available to industry on request. Write for "List A" of available publications.



THE INTERNATIONAL NICKEL COMPANY, INC.
New York 5, N. Y.

dom
contr
law.
cont
mont
reesta
the
waive
Su
subs
can
the
Su
copp
sligh
marg
ence
mon
pow
this.
basis
Dep
of M

domestic ceiling prices—died with price control under the terms of the price law. The government will probably continue its buying operation for some months, until normal trade channels are reestablished, but will have to sell at the average market. Tariffs will be waived on these deals.

Surviving exceptions are the import subsidies on South American and African rubber and on tin concentrates for the government's Texas City refinery.

Subsidies on domestic production of copper, lead, and zinc are continuing, slightly modified to a basis on which marginal producers are paid the difference between their individual costs and monthly average market price. The powerful mining bloc is battling to have this set up on a more or less permanent basis, to be administered by an Interior Dept. unit independent of the Bureau of Mines.

Fate of Allocation

Allocation of basic materials to industry has been on the way out for months. Only major survivors have been the textile, building material, and nonferrous metal programs, plus allocation of a small portion of steel.

Nonferrous allocation—tin, lead, and antimony—will be continued only as long as government imports, probably not much past the turn of the year. Steel will be dropped soon afterward.

For the next few months, CPA will rely on watered-down limitation orders to prevent completely frivolous uses of scarce metals; lead soldiers will still be forbidden.

What Will Stay

The only controls on materials which are reasonably sure to be kept in effect are:

Inventory restrictions, counted on to do what they can to discourage hoarding.

"Bottleneck busting" aid to producers—the CC priority ratings.

Rubber regulation, over both price and distribution. At least until the end of the year, the government will be the sole importer of natural, the sole producer of synthetic, and, therefore, the sole supplier of both. Specifications limiting the proportion of natural rubber to synthetic that is used in products will still be retained; in fact, Congress may be asked to make these specifications a permanent ruling as a protection for the synthetic industry (BW—Nov. 2'46, p15).

Textile set-asides, to insure prime materials for rounded production so as not to distort the market. Controls of industrial fabrics for export will be kept for the same reason. Priorities regula-

Dumping Policy Ordered as Surplus Sales Drop

The surplus disposal administrator, Robert M. Littlejohn, is upset about the precipitous drop in sales since he took over the War Assets Administration last July.

• **Sales Trend Reversed**—Total sales had made a steady nine-months' climb from about \$60,000,000 a month to just under \$400,000,000 in June. In July, sales dropped to hardly more than \$200,000,000, recovered to about \$280,000,000 in August, but slumped to some \$270,000,000 in September. October was a little lower, and November promises to just about hold even.

Sales of consumer-type goods are particularly hard hit. In the third quarter they're down to hardly more than half of the second-quarter level; in each preceding quarter sales more than doubled—from about \$60 million in the third quarter of 1945 to \$140 million in the fourth, \$300-million in the first of 1946, and \$600-million in the second.

• **Remedy Sought**—In an effort to do something about the drop, Littlejohn is naming a special board to figure out what's wrong with the unwieldy agency, whose personnel has increased nearly 50% in the last three or four months. Wayne Taylor, president of the Export-Import Bank and former Under Secretary of Commerce, will probably head the board.

At the same time, WAA crews from Washington are swarming out

to the regional offices in an effort to overhaul procedures and jolt up lagging sales.

• **Ready to Dump**—Regional sales chiefs are being told to dump the goods on a what-they'll-bring basis, at scrap values if necessary. All formalities have been waived in declaring goods scrap, and local officers are instructed to resort to asking bidding whenever fixed price sales prove slow.

Some government economists who think the economy is teetering on the verge of a more or less serious downswing are disturbed over the possible repercussions of a dumping policy at this time.

• **The Plan That Failed**—Actually, Littlejohn is suffering from the dismal failure of the on-site sales program initiated by his predecessor, Lt. Gen. E. B. Gregory. In June site sales accounted for only about 5% of consumer goods disposals and main reliance was placed on the system of mail-order sales through the regional offices in accordance with national commodity programs developed in Washington, a system in effect since October, 1945.

Then the word went out to throw all emphasis on site sales—over-the-counter disposal by sales crews working at the warehouses or Army camps where the goods happen to be stored. The hope was that this would permit the cleaning out of each ware-

house with a minimum of red tape.

• **Troublesome for Buyers**—It hasn't worked. The site system has failed to connect with the normal trade channels which have the capacity to handle WAA's vast quantities. Trouble is, the buyer has to go to the goods. A purchaser must send his commodity buyers to many sales.

The typical site sale does a booming business with the local people for a few days, then slumps badly, and is finally closed out with about 60% of the inventory still unsold.

• **More Planning**—Plant and machinery—which account for about two-thirds of the inventory and usually less than half of the sales—haven't been affected by the unsuccessful site-sale system, and sales dropped only slightly in the third quarter.

Littlejohn has been under pressure from some congressmen (BW—Oct. 27'46, p5) and from OWMR Director John R. Steelman to put more social and economic planning into plant disposal operations. Accordingly, Brig. Gen. John J. O'Brien, who heads up plant disposal, is gathering a stable of economists to do a programming job.

How far they'll get is somewhat problematical, but the first job they're tackling is to set up a plan for disposal of WAA's remaining aluminum producing and fabricating facilities.

PLAIN TALK ABOUT PLASTICS

how fast can
you finish
your product?



Today, as never before, *time is money*.

"Flash Bakes" of two minutes and even less can be obtained with surface coatings formulated with Monsanto's new melamine resin, Resimene 875. In most finishing plants, long on orders and short on manpower, equipment and space . . . this short curing cycle is welcome like nothing else could be.

Full details, samples, technical help will be sent to you, your finishing superintendent, your supplier. Simply write, wire, or phone: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield 2, Mass. In Canada, Monsanto Ltd., Montreal, Toronto, Vancouver.

Resimene: Reg. U. S. Pat. Off.

MONSANTO
PLASTICS
SERVING INDUSTRY...WHICH SERVES MAN

tions covering hardship cases will be retained.

Building material regulation, vital to the housing program, will be continued but may be transferred to Housing Expediter Wilson Wyatt's direct administration—particularly if the remaining functions of the dying war agencies are consolidated into a single liquidation outfit.

Standing Pat on Housing

The housing program is the one thing on which the Administration will stand, believing it can bank on veteran and some Republican support. Price controls would have been kept on building materials except that this would have turned producers toward other goods.

Free pricing of materials intensified Wyatt's drive for aluminum and steel factory houses (BW—Nov. 9 '46, p7). These materials, of which housing uses only a fraction, are less likely to be skyrocketed by the pressure for shelter.

THE COVER

Typical of and a leader among a new postwar group of "contract carriers" who are flying the products of industry through the skies is Earl Frates Slick.

Since his Slick Airways operates in and out of Fort Worth, Earl Slick can well claim to be at home for the Civil Aeronautics Board hearings which open in that city on Nov. 18. (But, to head off the loyal letter-writers around the Alamo, let's hasten to extend the cover-line here to say that San Antonio is his actual home-base.)

- **Historic Decisions**—Every businessman has an interest in these Fort Worth hearings, as set forth in the advance report on them which begins on page 42 under the title of "Battle for Air Freight." Out of them will eventually come historic decisions on the future routing of industry's air cargoes.

Their drama will center around the showdown fight between the older (originally passenger) lines which run on fixed routes and timetables and the new nonscheduled contract carriers which have been picking up freight where it is and putting it down where it is addressed.

- **Within Bounds**—The former wants this new competition held within what they call fair bounds. The latter seek common carrier certificates which will allow them to advertise definite schedules and rates but leave them free of some of the tight rules under which the passenger lines operate. Its stake is a volume of air freight that is growing all the time.

The Pictures—Acme—20, 42; Press Assn.—50, 80, 109; Int. News—34; Harris & Ewing—76; Blank & Stoller—17; Daily Herald—92.

A likely supplier for you in BINGHAMTON

sees the "big game" each year with the President of the Marine Midland Bank there



Business, in essence, is still—*people*. Your ability to get needed materials in New York State may depend on having accurate, current information as to new sources. This can well come from someone who knows the local business firms and the people who run them.

In 42 communities of New York State the officers of the Marine Midland Banks often have this first-hand knowledge that you need. It's their job to know the business of their community . . . it's their pleasure to know the men who head it up. Ask Marine Midland.

MARINE MIDLAND BANKS
SERVE 42 COMMUNITIES
IN NEW YORK STATE

The
**MARINE MIDLAND
TRUST COMPANY**
of New York

120 BROADWAY

Member Federal Deposit Insurance Corporation

THE OUTLOOK

BUSINESS WEEK
NOVEMBER 16, 1946



Most manufacturers' costs will go up—though not too sharply, for the moment, at least—because of removal of price controls (page 18).

This is notably true in the metalworking industries.

Steel will cost more—because extras will be adjusted—even though basic quotations on many products may not be changed at once.

Nonferrous prices already are up; demand is such that there is no certainty that they will not go still higher.

Immediate price increases may be looked for in lines which had petitions for relief before OPA or the Decontrol Board.

Otherwise, there isn't any uniform pattern. Some industries have received fairly adequate price increases in recent weeks. Others will adjust prices mainly on products which now are unprofitable.

Coal prices probably won't go up except for stoker sizes (for which a 25¢-a-ton increase had been asked of OPA).

Hot- and cold-rolled sheet steel probably won't be marked up nor will pipe. Some wire products but not nails will go up; so will concrete reinforcing bars and perhaps high-silicon sheets.

Soda ash and caustic soda have been advanced, but the industry has no uniform policy on other heavy chemicals.

Electrical manufacturers are losing money on small motors, will mark them up. On many products, however, they'll hold prices.

Removal of ceilings will have two very important effects quite aside from the direct influence on prices:

(1) Management will have a new freedom in bargaining on wages. The White House certainly was aware of this in connection with the coal wage dispute which Interior Secretary J. A. Krug was so anxious this week to pass back to mine operators.

(2) Scrap metals which have been in hiding will come onto the market. This is especially important in the case of lead, consumers of which must lean very heavily on secondary metal.

Higher prices posted on steel scrap this week may not cost steel mills as much as would appear at first glance.

To start with, the industry has been buying unsorted scrap and paying for it at top-grade prices. And scrap dealers have exacted other premiums (BW—Nov. 9 '46, p10) or else have just held onto the scrap.

For another thing, scrap-starved mills have been forced to use more and more pig iron in their steelmaking. This is expensive, so any improvement in the flow of scrap will be a cost-saver.

Nevertheless, the scrap rise increases the cost-price pinch in steel.

Increased flow of lead scrap to hard-pressed users should ultimately be reflected in more and better paint, more replacement batteries for autos, and more antiknock fluid for gasoline.

Manufacturers of building materials will profit from removal of ceilings, but this doesn't mean the home builder will suffer.

Actually, most ceilings have been a fiction for some time, although

THE OUTLOOK (Continued)

BUSINESS WEEK
NOVEMBER 16, 1946

responsible manufacturers held the line. At retail, almost everything was black market.

Now, with controls off, retail price tags aren't likely to be much, if any, above the old black market. And, as the new prices encourage output, it is likely that the consumer will pay less than in the past.

After all, production of most building materials has been stepping up pretty smartly, and use will be off seasonally during the winter.

Some auto men have their fingers crossed on predictions that, with ceilings off, they will soon find scarce materials and parts becoming plentiful.

Skepticism arises from (1) the fact that the housing program is taking so much of the merchant pig iron that would ordinarily go into castings for autos, trucks, and farm implements, and (2) the relative reluctance of the government at times to import copper and lead.

What does this add up to? Well, controls are off at the consumer level and the buyer now expects to get goods. But the auto people are afraid they won't be able to produce up to popular expectations.

Thus the industry might get a black eye it didn't have coming.

The spare tire still can't be put on the new car as original equipment, the government decided a few days ago, but minds may change.

Tires are among the things the motor car manufacturers have decided to order fewer of in trying to even up inventory (page 19). This very quickly could augment supplies available as replacements.

Our State Dept.'s refusal to put us into the new \$400,000,000 pool for food relief doesn't seem to jibe with the Agriculture Dept.'s planting goals for 1947, which are even higher than this year's.

But, in calling for a 3% boost in total acreage, Agriculture has more in mind than being in a position to help with relief feeding. Officials want to rebuild reserves out of the next crop.

Then, too, there will be some relief shipments to countries of which the State Dept. approves and cash sales to any and all comers.

Rice is conspicuous as one of the three items retained under price control and by its absence from retail stores, but the domestic crop is up to the whopping level of recent years.

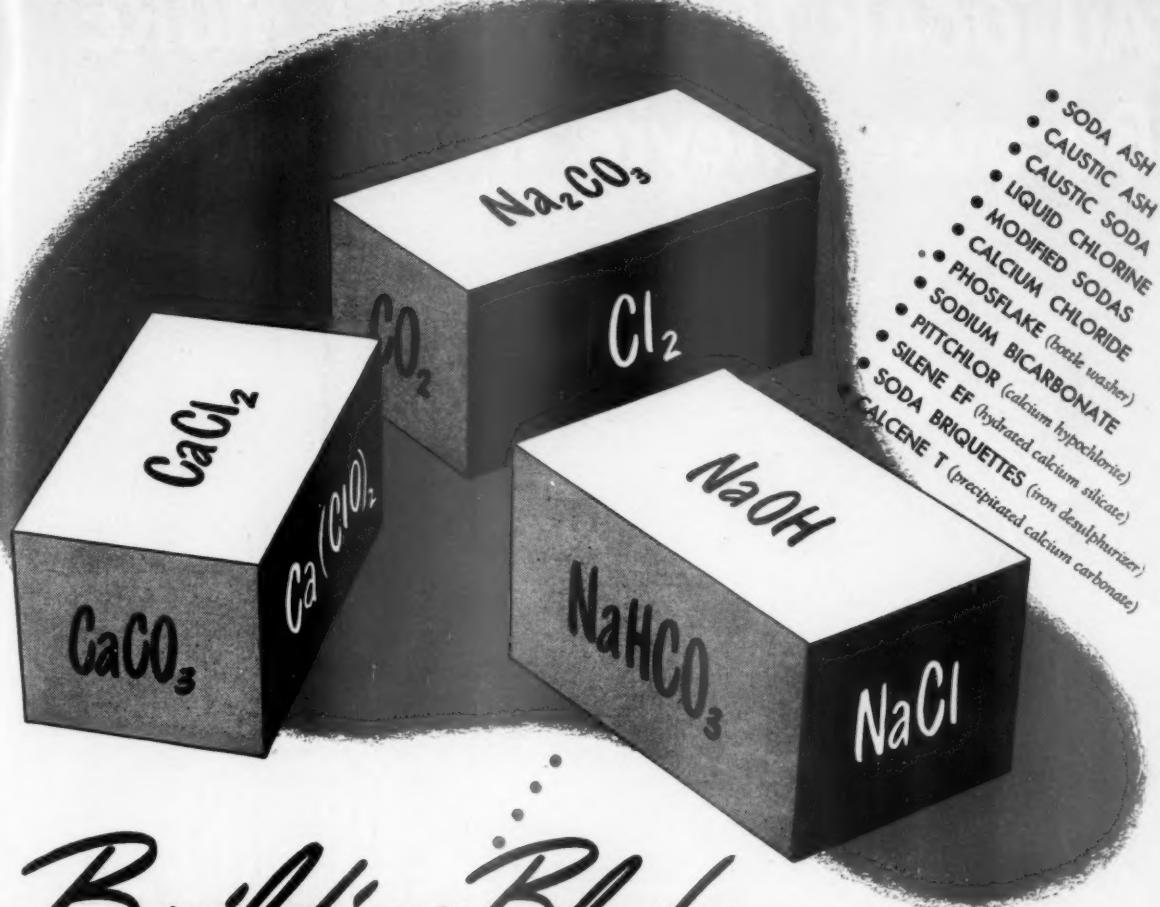
The harvest apparently will be just under 70,000,000 bu., off less than a half of 1% from 1945. We could export up to half of the crop and still have about as much left for home use as before the war.

Our principal export obligation, in addition to our regular Caribbean customers, is to the Philippine Islands.

If you are concerned about such things as the fact that income payments to individuals didn't rise as much in September as they normally should, you may relax.

This lag was almost entirely due to withholding of livestock from the market by farmers. There was no noteworthy change either in total non-agricultural income or in salary and wage payments.

We should make up lost ground at the recent rate of livestock sales.



- SODA ASH
- CAUSTIC ASH
- CAUSTIC SODA
- LIQUID SODA
- MODIFIED SODAS
- CALCIUM CHLORIDE
- PHOSFLAKE (bottle washer)
- SODIUM BICARBONATE
- PITCHLOR (calcium hypochlorite)
- SILENE EF (hydrated calcium silicate)
- SODA BRIOUETTES (iron desulphurizer)
- CALCENE T (precipitated calcium carbonate)

Building Blocks of Industry

These essential chemicals are aptly called "The Building Blocks of Industry," because without them products of modern Industry would not be the same as we know them today—and many could not be made at all.

COLUMBIA CHEMICALS

PITTSBURGH PLATE GLASS COMPANY
COLUMBIA CHEMICAL DIVISION

FIFTH AVENUE at BELLEFIELD • PITTSBURGH 13, PA.

CHICAGO • BOSTON • ST. LOUIS • PITTSBURGH • NEW YORK • CINCINNATI • CLEVELAND
PHILADELPHIA • MINNEAPOLIS • CHARLOTTE • SAN FRANCISCO

AUTOCAR TRUCKS COST MORE Because They're worth more!



Campbell
Autocar Trucks, engineered for heavy duty, are manufactured by
The Autocar Company, Ardmore, Pennsylvania, and are sold and
serviced by Factory Branches and Distributors from coast to coast.

FIGURES OF THE WEEK

THE INDEX (see chart below). *185.5 †185.1 181.7 165.4 162.2

PRODUCTION

	Latest Week	Preceding Week	Month Ago	Year Ago	1941 Average
Steel ingot operations (% of capacity)	91.2	91.1	90.5	80.4	97.3
Production of automobiles and trucks	92,490	†95,427	86,330	32,225	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)	\$14,349	\$14,163	\$16,998	\$11,668	\$19,433
Electric power output (million kilowatt-hours)	4,682	4,628	4,495	3,948	3,130
Crude oil (daily average, 1,000 bbls.)	4,779	4,759	4,737	4,451	3,842
Bituminous coal (daily average, 1,000 tons)	2,067	†2,083	2,050	2,082	1,685

TRADE

	Latest Week	Preceding Week	Month Ago	Year Ago	1941
Miscellaneous and L.C.L. carloadings (daily average, 1,000 cars)	91	91	87	81	86
All other carloadings (daily average, 1,000 cars)	63	66	64	61	52
Money in circulation (Wednesday series, millions)	\$28,750	\$28,588	\$28,608	\$28,137	\$9,613
Department store sales (change from same week of preceding year)	+17%	+23%	+15%	+10%	+17%
Business failures (Dun & Bradstreet, number)	25	22	25	17	228

PRICES (Average for the week)

Spot commodity index (Moody's, Dec. 31, 1931=100)	359.3	356.2	351.9	263.6	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939=100)	221.3	216.1	206.2	169.4	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939=100)	299.9	303.3	304.0	232.1	146.6
Finished steel composite (Steel, ton)	\$64.45	\$64.45	\$64.45	\$58.27	\$56.73
Scrap steel composite (Iron Age, ton)	\$24.42	\$19.17	\$19.17	\$19.17	\$19.48
Copper (electrolytic, Connecticut Valley, lb.)	15.625¢	14.375¢	14.375¢	12.000¢	12.022¢
Wheat (Kansas City, bu.)	\$2.07	\$2.07	\$2.02	\$1.69	\$0.99
†Sugar (raw, delivered New York, lb.)	5.57¢	5.57¢	5.57¢	3.75¢	3.38¢
Cotton (middling, ten designated markets, lb.)	29.91¢	31.14¢	38.20¢	23.96¢	13.94¢
Wool tops (New York, lb.)	\$1.380	\$1.330	\$1.330	\$1.330	\$1.281
Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	22.16¢

FINANCE

90 stocks, price index (Standard & Poor's Corp.)	118.2	119.3	117.9	135.5	78.0
Medium grade corporate bond yield (30 Baa issues, Moody's)	3.15%	3.16%	3.15%	3.16%	4.33%
High grade corporate bond yield (30 Aaa issues, Moody's)	2.59%	2.60%	2.61%	2.62%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average)	1½-1½%	1½-1½%	1½-1½%	1.00%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate)	½-1%	½-1%	½-1%	½%	½-1%

BANKING (Millions of dollars)

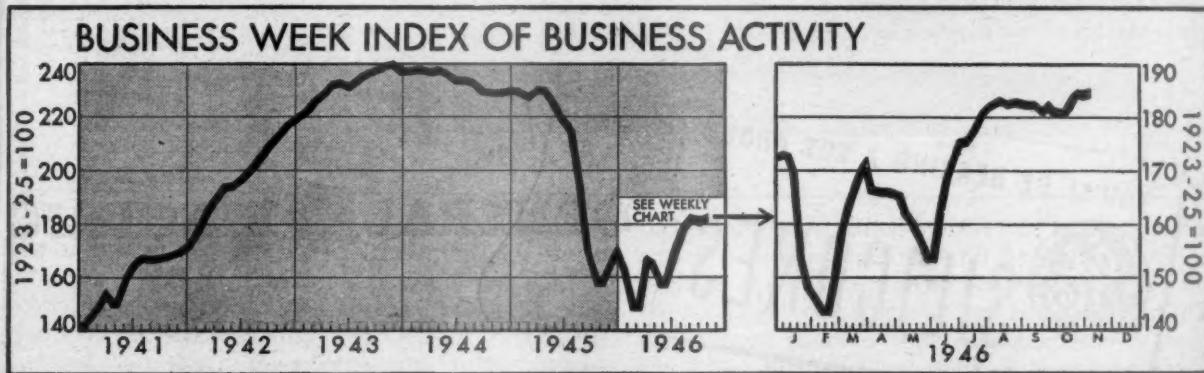
Demand deposits adjusted, reporting member banks	39,530	39,653	39,277	39,449	23,876
Total loans and investments, reporting member banks	57,609	58,554	58,170	61,034	28,191
Commercial and agricultural loans, reporting member banks	9,833	9,759	9,381	6,480	6,296
Securities loans, reporting member banks	2,564	2,551	2,474	3,368	940
U. S. gov't and gov't guaranteed obligations held, reporting member banks	37,967	39,044	39,187	45,263	14,085
Other securities held, reporting member banks	3,386	3,417	3,491	3,240	3,710
Excess reserves, all member banks (Wednesday series)	720	830	810	928	5,290
Total federal reserve credit outstanding (Wednesday series)	24,107	24,101	24,048	23,877	2,265

*Preliminary, week ended November 9th.

†Revised

* Ceiling fixed by government.

§ Date for "Latest Week" on each series on request.



What has Waterford, N.Y.

got to do with

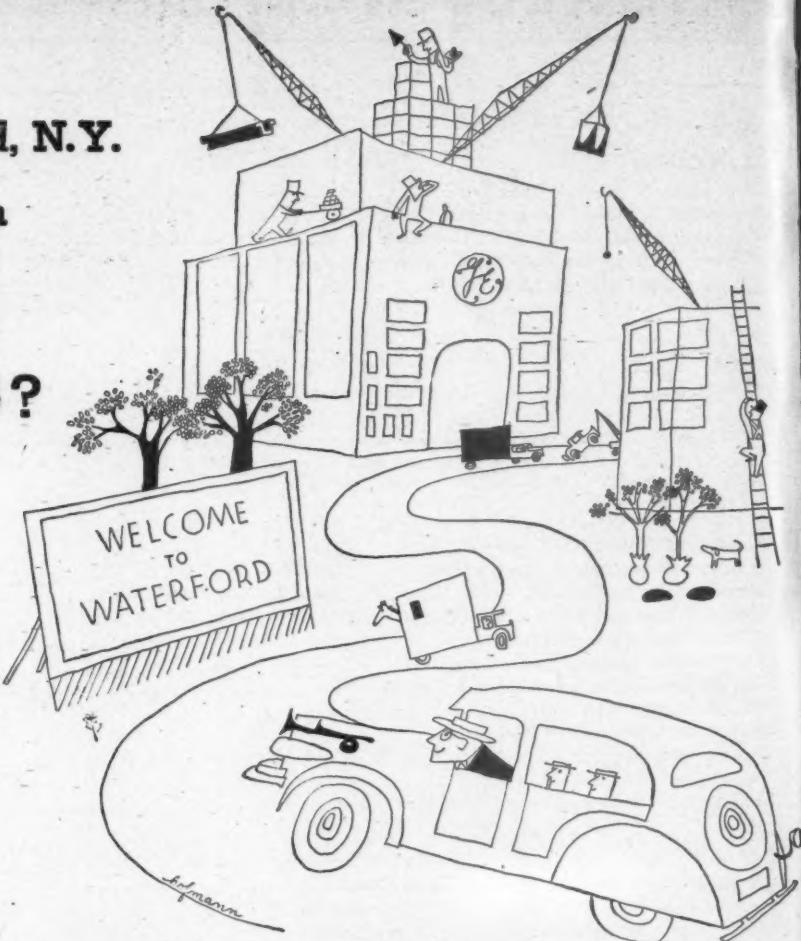
BETTER HEARING?

WELL, Waterford, N.Y., is where we're going to do something new about an old hearing aid problem—moisture. On damp, humid days, hearing aids need protection from moisture. For moisture, condensing around the sensitive electron tubes, causes noisy static. At Waterford, where we're building our plant to produce silicone products, we will be able to supply that protection with DRI-FILM, G.E.'s remarkable new water-repellent material.

Already, General Electric engineers have assisted the Sonotone Corporation in working out a DRI-FILM moisture-proofing treatment for hearing aid electron tubes. Radio, television, and public address systems will want its protection, too. But that's only the beginning.

DRI-FILM is fine for glass—textiles—paper—ceramics—plastics—almost any type of material that must shed water quickly and withstand wide ranges of heat and cold.

DRI-FILM isn't the only product our new plant is going to make. Far from it. DRI-FILM has a lot of surprising relatives



in the silicone family. There are silicone oils, silicone greases, silicone varnishes, silicone rubber products, and silicone insulating materials. The wonderful thing about them all is the way they can stand up against heat, cold, moisture, and chemicals. Undoubtedly, dozens of new silicone applications will develop as the products become more readily available.

During the war, General Electric's pilot plant turned out silicones in a variety of forms. But the quantities were

limited. Soon, with our new plant, we'll be able to produce silicone products by the tank car and by the ton—enough to meet your production needs.

When will that day come? It should be early in 1947. While we're getting ready to make silicones, many manufacturers are getting ready to use them. Do you see possible uses for silicones in your production? For more information, consult General Electric. Write to the Chemical Department, General Electric Company, Schenectady 5, N.Y.



GENERAL  ELECTRIC

CD46-S4

No-Strike Clause—With Teeth

Union financial responsibility for breach of contract, long sought by industry as a key to stable labor relations, is spelled out in agreement between United Steelworkers and the Murray Co.

Nationwide interest has developed in a mutual-responsibility contract negotiated between the Murray Co. of Dallas, Tex., and a local of the United Steelworkers of America (C.I.O.). After one false start, it was finally approved last week by the union's international officers.

• **Alteration Required**—The international first turned thumbs down on the contract because of precedent-setting clauses which make the union financially liable for contract breaches.

Last week this opposition was withdrawn when the contract clauses were rewritten to place full financial responsibility on the local union, and to exempt the international from any "finding of responsibility and assessment of

damages" as a result of a work stoppage in violation of the contract.

• **Responsibility Fixed**—The revised contract clause specifies:

"It is agreed between the parties that there shall be no strikes, work stoppages, or lockouts of any nature or condition during the life of this contract. In the event that this article of the contract is violated by the local union, any of its members, or by the company, a hearing before arbitration may be demanded by either party to determine the immediate responsibility for the cessation of work, and to assess fair and reasonable damages against the offending party or parties.

"The local union can only be found to be responsible under this article if

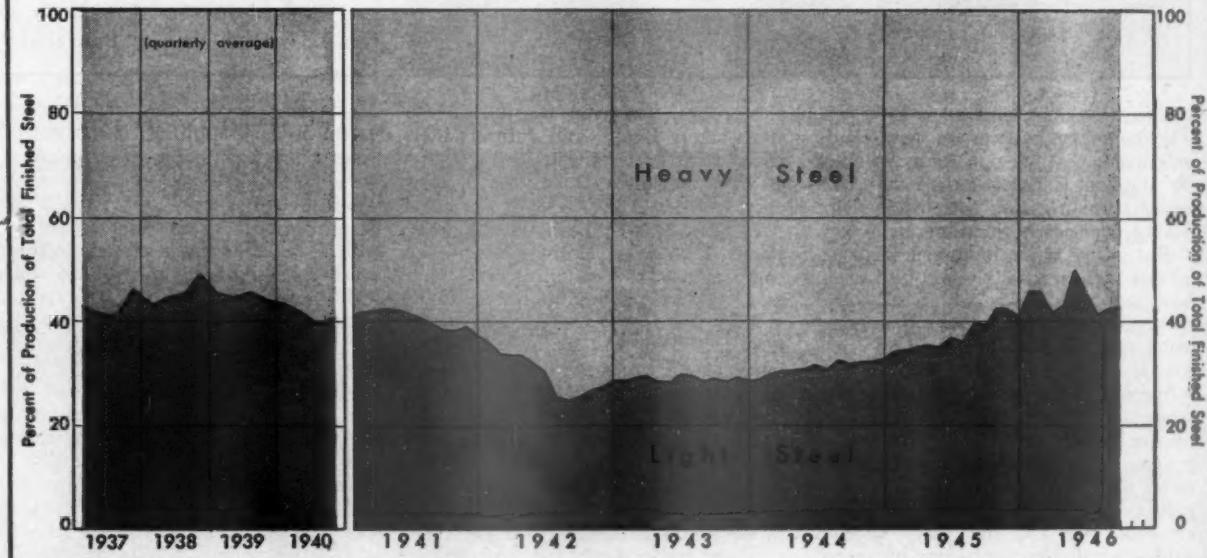
the strike is sanctioned by the local union, or is participated in by a majority of the membership of the local union employed by the company. In no event shall the arbitration make a finding of responsibility and assessment of damages against the international union. The findings of such arbitration shall be final and binding."

• **Prototype**—Even in the weakened, revised form, the Murray Co. terms were widely cited as typical of what management wants in new labor agreements. The fact that one company had succeeded in having union financial responsibility spelled out in an agreement with its local union was hailed as important.

Hopes of other small steel companies, and of the Non-Basic Steel Coordinating Committee (BW—Sep. 28 '46, p98), soared. The Murray Co. contract appealed to many small steel operators as a step toward disassociating themselves from steel contract policy-making, and strikes, on the national level.

• **Conflicting Views**—How much of these hopes is justifiable, and how much

LIGHT STEELS COME BACK TO PREWAR POSITION



Data: American Iron & Steel Institute.

© BUSINESS WEEK

Since V-J Day light steel has regained its prewar share of total finished steel production. During the grim days of the war in 1942, its percentage sank to a low of 24.9% of total output. It managed to get over 30% from the spring of 1944 on, and, beginning with October, 1945, it has stayed above 40% of the monthly total. In fact, in June of this year, the ratio was 50%, the highest figure since

such records were started in 1934. Of course the total amount of steel production is still too small to fulfill all demands of our present full-employment economy. But the restoration of the "normal" proportion of light steel output is an indication that consumer durable goods, which have been so scarce, will soon be coming on the market in much greater quantities.



THE INTEREST WAS HIGH

With hoopla elbowing aside dignity, the opening of a new branch of the Community National Bank of Pontiac, Mich., sounded a new loud note in banking procedure. Grimly determined to make the branch a definite part of the community, the bank enlisted the aid of Pontiac's Northside Community Club, ran newspaper ads inviting one and all to attend the open-house party. Despite rain, 3,700 persons jammed the new quarters (left), imbibed doughnuts and cider (above, left), collected valuable prizes, and listened to the cacophonies of the Curbstone Novelty Brass Band.

wishful thinking, remains to be tested. The company believes its new clause will mean that its operations will not be stopped if the international steelworkers union calls a nationwide strike during contract negotiations next year.

But many other industrial labor relations men are frankly skeptical as to how well the clause will work. And there is considerable doubt that many other companies will be able to win a similar clause.

• **Special Circumstances**—Management security was ceded to the Murray Co. by the local union primarily because of a weak union bargaining position. Seasonal activity of the company—principally production of cotton mill machinery—was over for the year. Interim work—on attic fan units—was hampered by material shortages. And the International Assn. of Machinists, with bargaining rights for 150 other workers in the Murray plant, was maintaining friendly relations with management and obviously was awaiting an opportunity to edge the C.I.O. out and take over the whole jurisdiction.

A contract, even at a cost of strong

concessions, was vital for the C.I.O. steelworkers local. And future adherence to the contract clause may be just as vital to the local's continued existence.

In addition to putting "teeth" in a standard no-strike contract clause, the company and its union agreed upon more rigid grievance procedures.

• **What the Union Got**—The company readily agreed to continue 1945-46 union security provisions—maintenance of membership and a checkoff of union dues—in return for the mutual responsibility clause. Reasoning was that m. of m. and the checkoff would be necessary if the union should be called upon to enforce its responsibility to management by disciplining contract-breakers.

As an inducement, the Murray Co. offered to increase wages of all employees drawing less than top-scale pay (about 15% of its 270 steelworkers) to the maximum rate. The contract ruled out any general wage increase, for at least six months, until plant production problems could be ironed out.

Continuation of m. of m. and the checkoff and the upward adjustment of

low-bracket wages were made conditional on final approval of the mutual responsibility contract.

• **No-Strike Violation**—The Murray Co. took this strong position for mutuality, it announced, because its employees, although bound by a no-strike clause, were called out along with all other C.I.O. steelworkers during the nationwide strike last February.

The company protested that the nine-week tie-up was against its employees' wishes. Executives said that this was the only strike in the 46-year history of the company and that it obviously was not a walkout against the Murray Co. because no grievances were involved. But the company found that under its old contract it had no legal recourse against the union. While the no-strike clause was in the contract, it would not withstand a court test.

Dissatisfaction over this situation—which many other employers in the steel industry shared—led to the company's demand for "a legal, binding contract through which we could fix responsibility [and] which we could take to court."

Unmined Coal Will Be Burned for Gas

Alabama Power Co. will test underground gasification to produce fuel for industrial use. Bureau of Mines is cooperating.

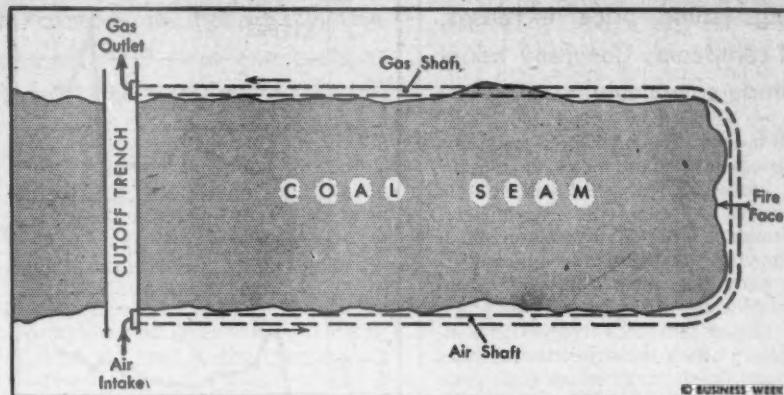
With its eye on possible coal mining economies and on utilization of coal veins difficult or impossible to mine, Alabama Power Co. is preparing to test the feasibility of generating producer gas for power purposes by burning unmined coal right in the ground.

To carry out this experiment in underground gasification of coal, the power company, with the U.S. Bureau of Mines cooperating, will isolate a coal vein in a new mine at Gorgas, Ala., set it afire, feed it air and perhaps oxygen, draw the resulting gases out of the mine, cool and deter them, then store them for use in its power plant nearby.

• **Russians Use Process**—Whether this means of obtaining cheap power is workable or economically practicable will be determined as the experiment progresses, but it is known that Russia has had several similar projects for more than eleven years and claims reasonable commercial success.

The gas obtained will be of low heating value compared with normal commercial gas.

Alabama Power plans to use a modification of the usual method of manufacturing producer gas in which air is passed through burning coal. In this method the oxygen in the air combines with the carbon from the coal at high temperature to form carbon monoxide,



© BUSINESS WEEK

Viewed from above, a cutaway of the underground coal-gasification experiment shows how the coal seam will be isolated by an open trench and a shaft. Coal will be ignited at the face opposite the trench; air pumped in one end of the shaft will keep coal burning, force out product gases from the other.

which is the principal inflammable material in producer gas.

A drawback, however, is that one-half to two-thirds of the product gas is made up of inert nitrogen.

• **Possible Refinements**—It is possible to increase the heating value of the gas by adding oxygen to the air, thus reducing the proportion of nitrogen. Then the resulting gas could be used for synthetic gasoline and fuel oils (BW—Jul. 21 '45, p74), ammonia, alcohol, and other chemicals derived from gas. A major obstacle here is the cost of oxygen.

Another possibility is addition of steam, which combines with the carbon at high temperature to form hydro-

gen and carbon monoxide. But heat must be supplied to keep this reaction going, and the problem is to prevent the temperature of the coal from dropping so low that carbon dioxide instead of carbon monoxide results.

• **May Try Lignite**—Possibilities of the underground gasification method of producing power fuel extend beyond coal. Some such procedure might also be worked out which would permit utilization of presently all-but-worthless lignite and oil shale deposits.

The experiment will be carried out on a coal seam located in a 400-ft. neck of land jutting out from a larger hill. A trench 20 ft. wide will be bulldozed across the base of this neck of land, isolating the coal seam, which is 30 in. to 40 in. thick and 40 ft. wide. Horizontal shafts 6 ft. in diameter will be driven into the hill from the trench, and connected at the down-slope end.

• **Peep Holes**—The plan is to fire the face of the coal vein at the deep end. Air will be blown in one shaft and the producer gas drawn out the other as the coal burns toward the cutoff trench. To allow engineers to follow the actual gasification processes, peep holes will be drilled into the air and gas shafts.

Actual tests are to start within 60 to 90 days and may take a year to complete. The project is expected to cost \$50,000 to \$75,000.

• **The Questions**—Bureau of Mines experts hope to get the answers to several major questions, including the smoothness of gasification underground, degree of control over burning, efficiency of gas reclamation, amount of precipitation of tar in pipelines, advantages of air, oxygen, and perhaps steam feeding, and byproduct percentages.



The proposal for Alabama Power Co.'s mine gasification project originated with Milton H. Fies (left), manager of the company's coal mine operations, and quickly received the backing of Thomas W. Martin (right), president, who is a leading figure in the Southern Research Institute (BW—Oct. 14 '44, p56).

Holding the Line?

Return to a free market brings some price increases, but companies generally adopt attitude of watchful waiting.

Return of a free market for practically all goods and commodities did not result immediately in price advances on all fronts.

President Truman's abandonment of most OPA controls came so quickly this week that many industries and individual companies preferred to watch the market and their competition instead of putting through price increases at once. In the first few days of price liberation, announced changes generally were those which had been publicized in advance as necessary to remove inequalities under OPA ceilings.

Among these were General Motors' \$100 across-the-board increase for its car models, and boosts in the prices of most nonferrous metals to levels now prevalent in world markets.

• **Watchful Waiting**—There were many statements made that no price boosts were contemplated at this time. Companies holding the line made it clear, however, that they might be compelled later on to increase prices if their costs should shoot up.

This sort of thing is most likely to take place in consumer durable goods, since their raw material costs are starting to rise. Willingness of steel mills to pay higher prices for scrap portends higher steel prices, too, at least in some types.

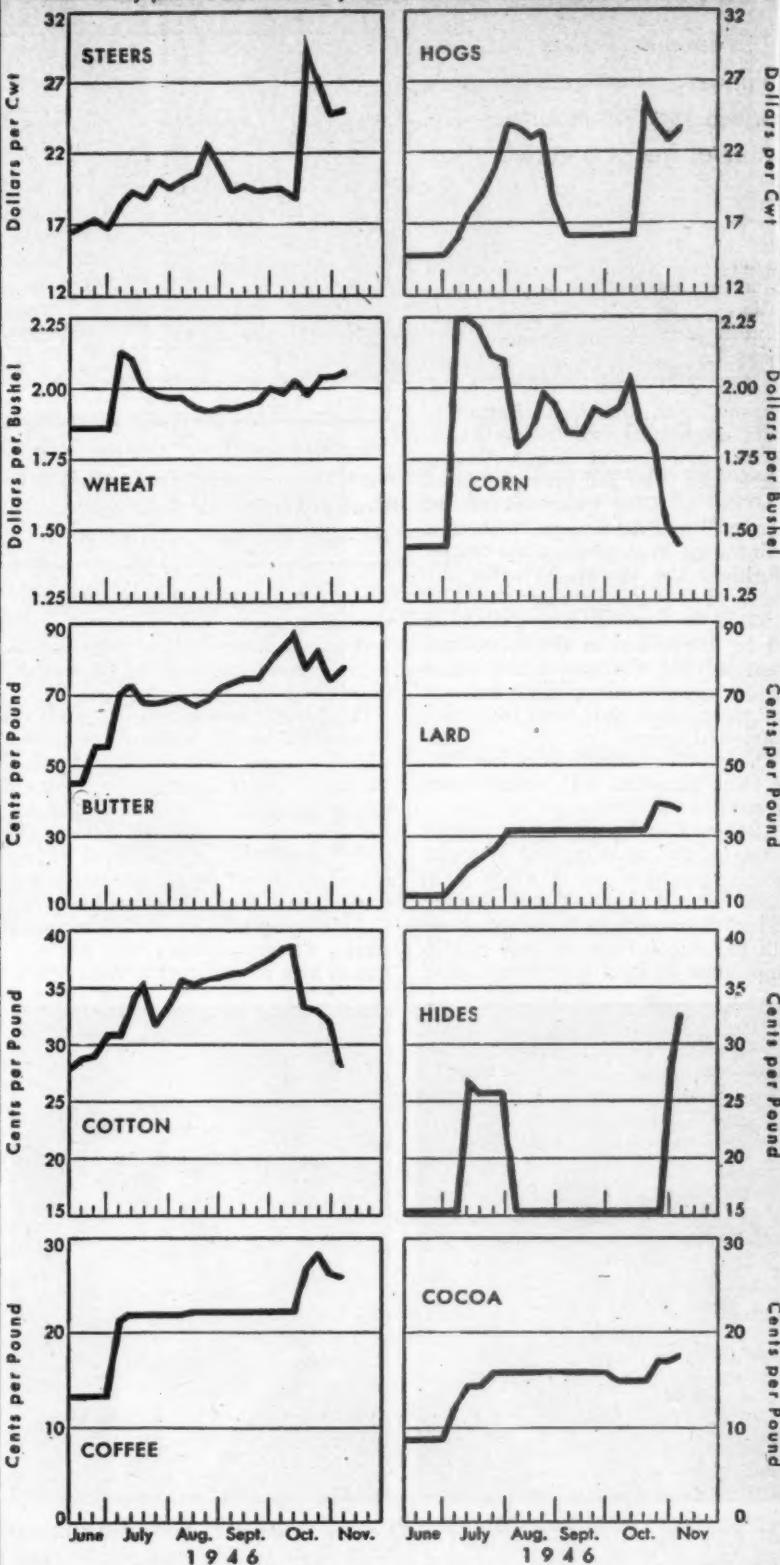
• **Wary of Resistance**—Here and there in various industries it was evident that companies were debating the advisability of price increases which might induce considerable buyer resistance. Although such resistance has not shown itself to any considerable extent in manufactured goods, it has already contributed to a secondary readjustment of prices in agricultural commodities.

The course of prices for some farm products (charts) indicates that the restoration of free markets does not mean that prices can necessarily be sustained at the highest levels attained shortly after decontrol occurs. The first flood of livestock drew record high bids from buyers, but the level declined as demand and supply came into balance.

• **Aware of Risk**—Manufacturers, aware of the consequences of bad pricing, usually will not risk advancing prices to a level from which they will promptly have to retreat. As one electrical appliance producer says of his own position, "This industry is highly competitive, and certainly no company can afford to be out of line on its prices."

PRICE ROAD ISN'T A ONE-WAY STREET

Inflationary push lessens as many commodities shake down in free market



Data: Bureau of Labor Statistics.

© BUSINESS WEEK

Imbalance Forces Cutbacks

Auto makers pare orders for components that are jamming warehouses as persistent shortages of sheet steel and castings keep output low. Redesign of parts for 1947 models also a factor.

For the first time since the end of the war, automobile companies are cutting back orders to their suppliers. No estimates are available on how big the trimming is dollarwise, but it's definitely substantial. Two main factors are back of the curtailment:

- **Unbalanced Inventories**—The car makers have too little basic stuff (sheet steel and castings, for example), which means there are proportionately too many tires, bearings, etc. Imbalances are causing jammed up warehouse space and a reduction in schedules.

- **Change-overs**—Many of the industry's plants are getting ready for shifts to 1947 models (BW—Sep. 21 '46, p41). Although such changes are on the minor side, there is some respecifying of component parts. Demand for numerous parts intended only for 1946 models is thus eliminated.

- **Suppliers Not Unhappy**—There is no uniformity whatsoever in the Detroit cutback pattern. One company's storage facilities are crammed with parts which are almost completely lacking in another company. Parts companies are receiving certain cutback orders with hardly disguised cheers, because they can now reroute shipments to meet the emergency needs of other car makers.

A few fairly clear-cut examples are notable. The shortage of bumpers has all but vanished, and stocks are beginning to build up beyond immediate needs. Similarly the cushion spring problem, so troublesome six months ago, has been fairly well relieved.

- **Problem in Sheets**—The governing factor on production today, rather than such parts, is sheet steel and castings. Not only are sheets unavailable for body sections, but they also are short for such fittings as hinges, clamps, and the like. And even if a great quantity of sheets were available tomorrow, only a portion of them could be used because of the shortage of castings.

- **No Alternative**—With those factors holding up production—not to speak of troublesome but less critical items like batteries, scattered molded rubber parts, zinc die castings, and others—the auto companies have finally concluded that no large relief is in sight immediately.

The decision, therefore, has been made through most of the industry in recent weeks to get inventories of parts and components down to reasonable proportions.

- **Significant Totals**—In General Motors, for example, inventories (largely goods

in process) as of Sept. 30, 1946, were \$549,356,483, compared with \$348,080,639 last Dec. 31 and \$321,973,730 on Sept. 30, 1945. In Chrysler they had risen to \$101,796,692 on Sept. 30, from \$72,470,389 on Dec. 31, 1945.

These totals, which appear typical of the entire industry, are significant when balanced against sales volume. General Motors' net sales in the third quarter amounted to \$622,618,885, comparatively little more than the value of inventory, against a customary inventory ratio of somewhere around a month's business. Chrysler's third-quarter net sales were \$242,721,124, putting that company in better comparative inventory position, but still with a proportion

SHOW DATE ERASED

The likelihood of a 1948-model automobile show next fall in Grand Central Palace vanished this week when the Automobile Manufacturers Assn. relinquished the dates being held for it in the New York City hall. Reason: The car makers couldn't decide this far ahead the best date for a general unveiling of 1948 models.

A show may be scheduled later, elsewhere. Talk is growing in the auto industry in favor of holding the annual event in Detroit (BW—Mar. 16 '46, p46). Some suggest the desirability of putting up a huge building in Detroit to house the auto show, other major expositions, and big conventions.

that is somewhat larger than usual.

- **Spotty Situation**—The enlarged inventories which are being reduced vary by companies.

Tire stocks are generally sufficient, and forward orders have been trimmed to match shrunken auto-output schedules.

Bearings are overstocked at many points, resulting in wholesale cancellations.

Rubber parts like floor mats (but not all rubber components) are in heavy supply, and such commitments have been notably reduced.

Upholstery inventories for some body making divisions of various companies are likewise being reduced.

- **Big Replacement Demand**—In nearly all cases, cutbacks of these kinds do not spell bad news for parts suppliers. On an average, the suppliers are doing replacement business at least twice the pre-war peak, but demands on them are still unsatisfied. They will turn their operations toward filling this demand while the auto companies adjust their stocks.

On scattered items like tires, which are beginning to fill the distribution pipelines to the consumers, this may not hold true, but such cases are definitely in a minority group.

- **Warehousing Tight**—By the early part of next year, from the present look of things, the bad inventory positions in the car companies should be pretty well corrected, and releases to suppliers enlarged. Even currently reduced output rates can eat up stock rapidly.

This is particularly true in the light of the warehousing situation. Before the war the car companies carried stock measured in terms of days only. Their present supply situations in some lines have been limited by lack of more storage space, and so, though large, are far from bloated.

THE STATE BAR OF CALIFORNIA
THE SAN DIEGO COUNTY BAR ASSOCIATION
IN COOPERATION WITH
THE STATE BAR OF CALIFORNIA

**THE MAN WHO
FELT LIKE
KICKING HIMSELF**

Mr. N. was transferred home by his company . . . and needed a lawyer. He finally found one, an old friend. The lawyer said, "I can't help you. You have to go to a two-year lease if he would be in the office." "I don't care," said Mr. N., "I'm not going to work, had the house painted and repaired, and moved in. Less than three months later he received a notice from his landlord: 'Please vacate. The owner has sold the house over his head!' Mr. N. then sought advice . . . only to receive too late that a lawyer—had he come to him earlier—would have protected him by inserting on a properly drawn written lease to require by statute. As it is, Mr. N. feels like kicking himself. He could so easily have saved himself a lot of trouble and expense if he had known what was necessary to establish such rights as he may have.

See yourself from such experiences. There are thousands of men, representing all walks of life, who are in a position to advise you on legal and business matters. They are your legal and business advisers . . . and are available to you at all times. So whether you are planning to go into business for yourself or to buy a home . . . make a will or enter into an agreement . . . it is good sense to do so now . . . and many people now do it by consulting a lawyer. **SEE A LAWYER FIRST.**

A lawyer is your professional adviser. He will serve you in confidence. He aims to clarify legal and business problems for you . . . to prevent difficulties, disputes and losses . . . to protect your rights and interests . . . and to general to act as your guide in any legal matter.

PRESENTING THEIR CASE

Departing from the tradition that professional men don't advertise, the San Diego Bar Assn. is using displays in local newspapers to persuade the public to use its members' services. Each ad outlines a test case, showing how trouble might have been avoided by "seeing a lawyer first." The campaign is sponsored by the State Bar of California, which prepares the copy, thinks the idea will spread.

Industry-Military Link Forged

Army-Navy appropriations for research bring development contracts to many companies. Services' preparedness plans and technological advances increasingly important to management.

Except among those industries which are clearly part of the U. S. munitions potential—aircraft and shipbuilding, among others—war production contracts apparently are ancient history, of interest only to accounting departments. But alert management will think twice before letting its Army-Navy connections drop.

Experience during the last half-decade shows that a national emergency means the munitions business for most of industry. And continued international tensions imply continuing military influence in industrial operations.

- **Contract Pattern**—For many companies, the avenue into the military procurement agencies is likely to be paved with development contracts rather than straight production agreements.

The development contract is a device by which one of the services hires an industrial firm to do the design and production engineering, perhaps some of the basic research, on a piece of military gear. Typically, such a contract may start with an assignment to pro-

duce a weapon, piece of equipment, or component having certain characteristics. Or it may start with a rough design worked out in principle by a military laboratory and needing to be put into shape for production.

The contract may call for delivery of plans and specifications of a production model, perhaps the manufacture of a prototype, perhaps preparation of tooling designs and a factory layout for actual production.

- **Emphasis on the New**—Army and Navy funds for research and development are actually nearly half as great this year as their funds for procurement of standard weapons and equipment. Short of a mobilization situation, this high ratio of development to production will continue.

The services are anxious to avoid the mistake made after World War I, when they sat on a stockpile of obsolescent gear.

- **Dual Weapon**—At government salaries, the services have no hope of holding together the large staffs of top-caliber men which would be required to handle development work in military shops. But through the indirect means of contracts with industry, they can pay any salaries required.

They are tending also to regard the development contract as a way of keeping industry in touch with military problems and techniques.

- **Air Preparedness**—This sort of thinking has gone farthest in the air arm. Military airmen must keep the aircraft industry, a comparatively small operation in peacetime, in shape for wartime expansion to the biggest single industry in the country.

Recognizing that it doesn't make sense—politically or militarily—to pile up quantities of planes which are obsolescent by the time they get into the air, aviation planners envision an aircraft industry which, in its military aspect, would be one vast research organization.

Although expenditures for purchase of operational aircraft have dropped to a tiny fraction of the war level, both AAF and the Navy's Bureau of Aeronautics are actually spending more on development than they did at the peak of the war. In round numbers, more than \$300,000,000 has been appropriated for this fiscal year, as against \$200,000,000 in 1944.

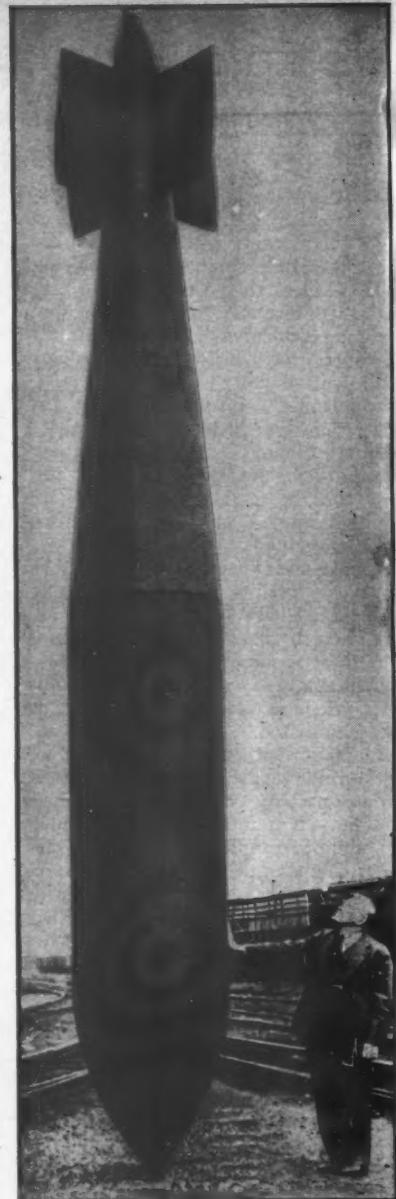
- **Variations**—In other branches of the military service, dealing with nonaviation industries, the total for develop-

Dollars for Development

Probably no one can say today exactly how much money the military bureaus or branches have available for research and development work. But appropriations for such activities in fiscal 1947 offer at least a rough indicator. These appropriations break down as follows (figures in millions):

Navy	
Bureau of Ships.....	\$51.5
Bureau of Ordnance.....	35
Bureau of Aeronautics.....	150
Office of Naval Research.....	45
Army	
Army Air Forces.....	\$185
Ordnance Dept.....	52
Signal Corps.....	25
Corps of Engineers.....	6
Chemical Warfare Service.....	6
Medical Dept.....	3.5
Quartermaster Corps.....	2.5
Transportation Corps.....	1

The Navy has segregated its basic research of the university type in the Office of Naval Research. The Army, whose allocations for such studies run to about \$70,000,000, spreads both research and development through its various branches.



Rudolph Furrer, vice-president of A. O. Smith Corp., looks over—and up—something new: a 22,000-lb. "Amazon" bomb which was made by his company for the Army.

mental work has dropped from something like \$500,000,000 a year in 1944 to less than \$200,000,000.

There is also considerable variation in the extent to which nonair development work is farmed out to industry. Navy's Bureau of Ships, with \$51,500,000 to spend on such work, funnels all but about \$14,000,000 into its own laboratories.

More typical is the situation at the Navy Bureau of Ordnance. Of the funds it obligated last year, \$12,000,000 went

Rollcall of Firms Developing Ordnance for U. S. Army

Apart from aviation projects, the biggest category of military development work is ordnance. An indication of industrial involvement in such work is provided by this list of firms engaged on development projects for the Ordnance Dept. of the Army.

A. C. Spark Plug Div., G.M.C.
Aerojet Engineering Corp.
Acton Standard Engineering Co.
Allis-Chalmers Corp.
Allison Division, G.M.C.
Alpha Engineering Co.
Aluminum Co. of America
American Air Filter Co.
American Blower Corp.
American Instrument Co.
American Madsen Corp.
American Steel Casting Co.
American Steel Wire Co.
American Tire Machinery Co.
Armour Institute
Armour Research Foundation
Atlas Metal Stamping Co.
Babcock-Wilcox Co.
Bacum Vulcanizer Co.
Barnes-Gibson-Raymond
Bartelt Engineering Co.
Battelle Memorial Institute
Bell & Gossett Co.
Bell Telephone Lab. (Western Electric Co.)
Bendix Co.
Bennell Machine Co.
Bethlehem Co.
Bogus Electric Co.
B & K Co.
Bridge Tool & Die Works
Brown University
Cadillac Motor Car Div., G.M.C.
Calif. Institute of Technology
Carboly Co., Inc.
Carey McFall Co.
Carnegie-Illinois Steel Corp.
Carnegie Institute of Technology
Case School of Applied Science
Catalyst Research Corp.
Central Boiler & Mfg. Co.
Cincinnati Milling Machine Co.
Champion Spark Plug Co.
Chrysler Corp.
Commerce Pattern Foundry & Machine Co.
Commercial Shearing & Stamping Co.
Continental Motors Corp.
Coordinating Research Council
Corbitt Co.
Cornell University
Crane Co.
Curt (G. Joa) Co.
DeBothezot Ventilating Equip. Div.
Delco-Remy Div., G.M.C.
Detroit Machines Products Co.
Detroit Sales Engineering Co.
Dixson (Paul H.) Co.
Dynamatic Corp.
Eastern Tool Mfg. Co.
Eaton Car & Construction Co.
Eaton Mfg. Co.
Electric Auto-Lite Co.
Electrolux Co.
Electromaster, Inc.
Elgin Salvage Supply Co.
Empire Steel Products Co.

Ethyl Corp.
Eureka-Williams Corp.
Evans (Ralph L.) Associates
Exacting Level & Tool Co.
Federal Laboratories, Inc.
Firestone Tire & Rubber Co.
Ford Motor Co.
Franklin Institute
Frigidaire Div., G.M.C.
Fruehauf Trailer Co.
Gar Wood, Inc.
General Electric Co.
General Motors Corp.
General Tire & Rubber Co.
Geometric Stamping Co.
Goodrich (B. F.) Co.
Goodyear Aircraft Corp.
Goodyear Tire & Rubber Co.
Gunderson Bros. Engineering Corp.
Haberstump-Harris Co.
Hall (C. M.) Lamp Co.
Harvey Machine Co.
Heintz (James C.) Co.
Heintz Mfg. Co.
Hercules Powder Co.
Holland Hitch Co.
Horma Mfg. Co.
Houde Corp.
Hunter & Co.
Hutchinson Mfg. Co.
Inland Mfg. Div. G.M.C.
International Business Machines Corp.
International Harvester Co.
International Staple & Machine Co.
Johnson Automatics, Inc.
Jones & Laughlin Steel
Kellogg (M. W.) Co.
Ketay Mfg. Corp.
Keyes Fibre Co.
Kilgore Mfg. Co.
Lamson & Sessions Co.
Leece-Neville Co.
Leeds & Northrup
Lehigh University
Little (Arthur D.) Inc.
Lukeweld, Inc.
Machined Metals Co.
Machine Products Co.
Mack Mfg. Co.
Mansfield Tire & Rubber Co.
Marmon-Herrington Co.
Martin (Glenn L.) Co.
Martins Ferry Div., Blaw Knox Co.
McKenzie Awning Co.
McQuay Mfg. Co.
Mass. Institute of Technology
Mellon Institute of Industrial Research
Mergenthaler Linotype Co.
Metropolitan Museum of Art
Micromatic Metal Product Co.
Milsco Mfg. Co.
Milwaukee Excavator Co.
Morey Mfg. Co.
Mullins Mfg. Corp.
National Automotive Fibres Co.

The list is necessarily incomplete. Contracts are constantly being wound up while new ones are being entered into. And the list takes no account of the many firms that are engaged in doing development work under sub-contracts.

National Fireworks Co.
National Research Corp.
National Tube Co.
Nesbit (John J.) Inc.
Norris Tool Machine Co.
Ohio Rubber Co.
Ohio State University
Oliver United Ind.
Pacific Car & Foundry Co.
Package Machinery Co.
Paragon Mfg. Co.
Parrish Pressed Steel Co.
Pennsylvania State College
Pennsylvania University
Pontiac Motor Div., G.M.C.
Proctor-Keefe Co.
Production Methods, Inc.
Product Study Div., G.M.C.
Purdue Research Foundation
Radio Corp. of America
Remington Arms Co. Inc.
Revere Copper & Brass Co. Inc.
Reynolds Metals Co.
Robert Shaw-Thermostat Co.
Safety Vulcanizer Co.
Safeway Heat Elements Co.
Saginaw Steering Gear Div. G.M.C.
Sanford Engineering Co.
Schrader (A.) & Son
Scintilla Magneto Co.
Seiberling Rubber Co.
Seymour Products Co.
Shepard (C. M.) Co.
Shepard, F. H., Jr.
Singer Mfg. Co.
Smith (A. O.) Corp.
Sperry Gyroscope Co.
Spicer Mfg. Corp.
Spool Cotton Co.
Standard Products Corp.
Sterling Motor Truck Co.
Stewart-Warner Corp.
Technical Development Co.
Timken Detroit Axle Co.
The Institute for Advanced Study
Tractomotive Corp.
Turbo Machine Co.
Union Carbide & Carbon Co.
Universal Cyclops Steel Co.
University of Arkansas
University of Michigan
U. S. Rubber Co.
Veedar Root, Inc.
Vickers, Inc.
Victory Plastics Co.
Waldes-Kohinoor Co.
Wellman Engineering Co.
Wesleyan University
Westclox Div., General Time Instrument Co.
Western Cartridge Co.
Western Electric Co.
Willson Magazine Camera Co.
Wing (L. J.) Mfg. Co.
Yoh (H. L.) & Co.
York Industries

into the two big ordnance laboratories, \$20,000,000 into contracts with universities, and \$40,000,000 into contracts with industry.

• **Heavy Increase**—A sum of less than \$200,000,000 for nonaircraft military projects does not look too impressive

after the flowing dollars of wartime. But it gains significance when compared with the prewar total of government and private industrial research and development expenditures—variously estimated at \$200,000,000 to \$300,000,000. (It can be assumed that the current

level of industry expenditure is higher.)

• **Industry Hesitant**—The limit on developmental contracting at present is less the availability of funds than the reluctance of industry. Businesses engrossed in the engineering problems of reconversion are not eager to tie up

research facilities in government work. A business recession could quickly send industrial research departments scurrying for federal contracts. But quite apart from this unattractive possibility, there are at least two good reasons for suspecting that industry may find itself much more concerned with military development work in the next few years.

• **Mobilization Concept**—One reason is that mobilization factors can be expected to assume more and more importance in business policy. And in a period of rapid change in military technology, contract development work can be expected to take the place in mobilization programs of the prewar "educational order."

The biggest present influence of the mobilization concept shows up in a preference for awarding development work to firms with a production capacity that would enable them to take on a full-scale contract for anything they might develop.

• **Technical Treasury**—A second reason, less immediate but equally cogent, for increased business interest is the distinct probability that over the coming years the services will become a depository of advanced technical and scientific know-how.

Because the technique of war has moved into areas uncharted by commercial technology, the services are now financing and furnishing some degree of direction to substantially all the basic

work being done in the physical sciences (BW—Sep. 14 '46, p 19). The odds are that they will continue to do so.

Since the science of today is the technology of tomorrow, firms dependent upon advanced technology will want to insure continuous contact with the military reservoir.

• **Contractual Basis**—Obviously, the interchange of commercial and military technology is influenced by the contractual arrangements, particularly as to patents, under which development work is done.

Development contracts are negotiated on a cost-plus-a-fee basis. The Navy makes this type of contract under permanent legislation approved by the last Congress. The Army, which is seeking

Naval Ordnance Engages Cross-Section of Industry

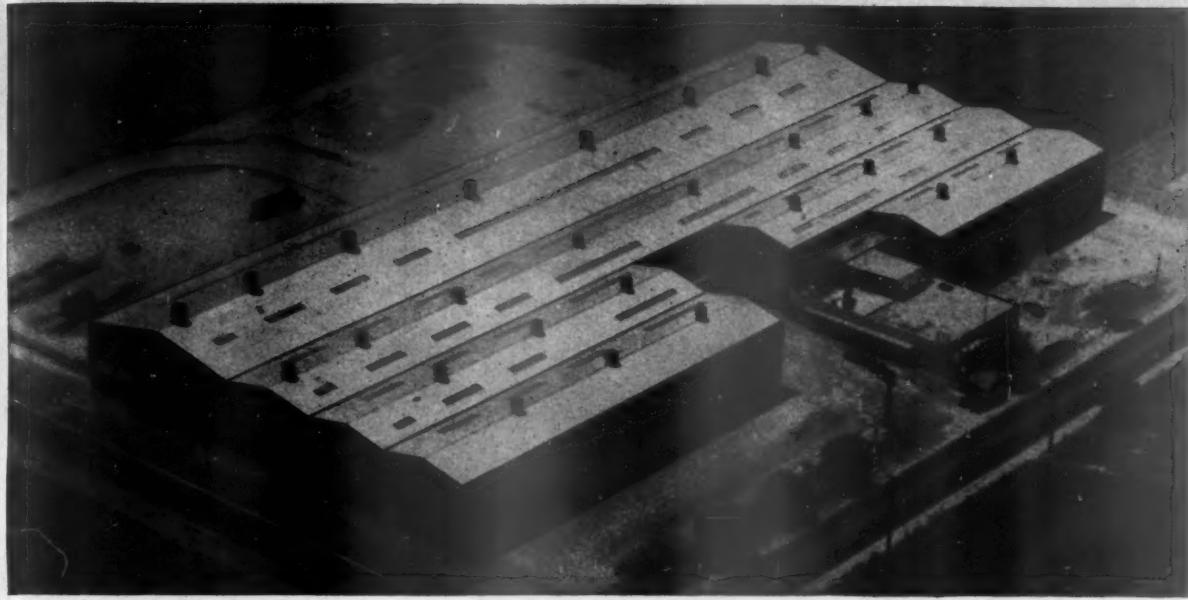
Like the compilation of businesses holding development contracts with the Army Ordnance Dept. (page 21), the following list of firms having similar contracts with

the Navy's Bureau of Ordnance is incomplete. Even so, it is impressive evidence of the extent to which U.S. industry is already directly involved in such work.

Aerojet Engineering Corp.
Torpedoes and guided missiles
American Cystoscope
Aviation ordnance
American Pulley Co.
Amphibious munitions
AMP Corp.
Fuzes
Arma Corp.
Fire control and power drives
Aurex Corp.
Aircraft guns and rocket launchers
Automatic Temperature Control
Fire control
Ballaulf (D.) Mfg. Co.
Mines and depth charges
Battelle Memorial Institute
Nets and booms
Bausch & Lomb Optical Co.
Fire control optics
Bell Aircraft Corp.
Guided missiles research
Bethlehem Steel Corp.
Ammunition
Bendix Aviation Corp.
Guided missiles
Bishop & Babcock
Underwater ordnance
Brandon Scientific Development, Inc.
Fire control
Cambridge Thermionic Corp.
High explosives and amphibious munitions
Camden Eastern Marine Co.
Guided missiles
Camden Flooring Co.
Plastics
Carnegie-Illinois Steel Co.
Ammunition, projectiles, rockets, and related missiles
Consolidated-Vultee Aircraft Corp.
Guided missiles
Culp Welding Co.
Plastics and packaging
Curtiss-Wright Corp.
Guided missiles
Devenco, Inc.
Fire control
E. I. du Pont de Nemours & Co.
Ammunition details, pyrotechnics, and gun propellants
Edison (Thomas A.), Inc.
Fuzes
Electronic Associates, Inc.
Guided missiles
Electric Boat Co.
Fire control and torpedoes
Emerson Electric Co.
Guns and mounts
Experiments, Inc.
Guided missiles

Farnsworth Television & Radio Corp.
Guided missiles
Farrand Optical Co., Inc.
Optical fire control equip.
Ford Instrument Co.
Fire control equip., aviation ordnance
Foxboro Co.
Torpedoes
Gaertner Scientific Corp.
Optical fire control equip.
General Electric Co.
Machine guns and mounts, fire control, radar, torpedoes
General Mills, Inc.
Mines
General Tire & Rubber Co. of Calif.
Guided missiles
Hart (Frederick) & Co., Inc.
Underwater ordnance
Harvey Machine Co., Inc.
Aviation ordnance
Joshua-Hendy, Inc.
Guns and mounts
Hercules Powder Co.
Guided missiles, propellants, high explosives, and amphibious munitions
Insl-X Co.
Moisture and fungus proofing
Kearfott Engineering Co.
Fuzes
Kellex Corp.
Fuzes
Lee Engineering Co.
Intermediate caliber mounts
Librascope Corp.
Fire control
Mass. Eye & Ear Infirmary
Gunnery trainers
Maxson (W. L.) Corp.
Machine guns and mounts
Midvale Co.
Rockets and projectiles
Merrill Engineering Co.
Guided missiles
National Carbon Co.
VT fuses
National Fireworks Co.
High explosives and amphibious munitions
Nordberg Co.
Rocket launchers
Norden Laboratories Corp.
Aircraft fire control equip.
Norge Div. of Borg-Warner
Antiaircraft fire control
Norris Stamping & Mfg. Co.
Ammunition details
North American Aviation, Inc.
Guided missiles

Northern Ordnance Co.
Guns and mounts
Panish Controls
Mines and depth charges
Poitras (Edward J.) & Taplin (John F.)
Aircraft fire control
Production Methods, Inc.
Intermediate caliber mounts
Ranger Aircraft Engines
Torpedoes
Raytheon Mfg.
Fire control and radar
Reeves-Ely Laboratories
Fire control
Radio Corp. of America (Victor Div.)
Guided missiles
Roebling's (John A.) Sons Co.
Nets
Rheem Mfg. Co.
Machine guns
Shepard, F. H., Jr.
Machine guns
Shirgur Corp.
Machine guns
Specialties, Inc.
Aviation fire control
Sperry-Gyrocopter
Antiaircraft fire control and ballistics
Standard Oil Development Co.
Guided missiles
Stavid Engineering, Inc.
Fire control
Submarine Signal Co.
Mines, fire control, torpedoes, and guided missiles
Stewart-Warner Corp.
Fuzes
Sylvania Electric Products
Guided missiles and VT fuzes
Teague, Walter Darwin
Rocket launchers
Televis Prod. Inc.
Radar
United Aircraft Corp.
Guided missiles
U. S. Radium Corp.
Optical fire control
Vickers, Inc.
Guns
Watson Elevator Co.
Torpedo fire control
Western Electric Co.
Radar, antiaircraft fire control, and underwater ordnance
Westinghouse Electric Corp.
Guns and torpedoes
Wilmotte Mfg. Co.
Guided missiles



A New Ryerson Steel-Service Plant in Los Angeles

We are pleased to announce the opening of our new Steel-Service plant in Los Angeles. The warehouse and office buildings cover an area of some 200,000 square feet in the Central Manufacturing District, conveniently located for prompt service to the Los Angeles marketing area and southern California.

The most modern cutting and handling facilities have been installed for quick, dependable service. Fair stocks of bars, shapes, plates, sheets, tubing, etc. are on hand, but tonnage is still small due to the current steel shortage—and

all sizes are not available. This situation naturally limits the scope of our service. However, you may be sure that we will build up our inventories as soon as possible.

Fortunately, we have a strong, experienced steel-service organization in Los Angeles and stand ready to cooperate closely with you whenever you call. Joseph T. Ryerson & Son, Inc. Steel-Service Plants: New York, Boston, Philadelphia, Detroit, Cincinnati, Cleveland, Pittsburgh, Buffalo, Chicago, Milwaukee, St. Louis, Los Angeles.



RYERSON STEEL



to point the way to a new high standard of materials handling in your industry!

Here's a fully-illustrated 40-page book showing how a major industry cuts handling costs through use of ROSS Straddle Carriers and ROSS Lift Trucks—and how these heavy duty machines—The ROSS System of Unit Load Handling—can effect substantial savings in your plants . . . Send for your copy of The ROSS "70" BOOK—ask for Bulletin BW-116.

THE ROSS CARRIER COMPANY
300 MILLER STREET, BENTON HARBOR, MICHIGAN, U. S. A.
DIRECT FACTORY BRANCHES AND DISTRIBUTORS THROUGHOUT THE WORLD

similar legislation, now uses a modified procurement contract under the war powers legislation.

• Patent Policy—Present patent policy is essentially the same in both services. Information developed by studies made under government contract is the property of the firm doing the work, but the government is entitled to use the results.

In practical terms this means that, unless security restrictions interfere, the industrial firm holding the contract is free to take out a patent on any valuable discoveries made. The patent is its own property to do with as it wishes, except that it must grant an irrevocable, nonexclusive, royalty-free license under the patent to the government.

If the military feels that the discovery should be kept secret, the contractor still has the right to a patent, but he must defer use of the right until the necessity of secrecy is gone. Under a rather complicated procedure, involving a temporary assignment of the invention to the government, an application for a patent can be put into the secret files of the Patent Office, to be brought out at the proper time.

• Royalty—if the development work done under the contract involves the use of ideas on which the contractor has already taken out or applied for a patent, the government will pay a royalty on them. But a specific royalty—usually 4% or less—is written into the contract.

One exception to this general policy arises when the Army contracts with a firm whose research facilities have been financed by the government. In such a case, the Army is likely to retain full rights to any discovery.

• Generally Acceptable—The policy as a whole is broadly satisfactory to businessmen. It arises from the feeling in industry that the results of any particular research project cannot be attributed simply to the expenditures on that project, but are the product of long experience and a trained staff. These are considered part of the capital equipment of the contracting firm.

• Shoals Ahead?—Reasonable as it may be, the policy is likely to prove a hard one to defend, politically, when it comes up for congressional overhaul next year. It is already under attack from the Justice Dept. (BW—Oct. 19 '46, p. 5), and congressional liberals will point to industry's own practice of retaining patent rights in its contracts with employees and with industrial research laboratories.

From a military point of view, the basic issue is perhaps the adoption of a policy which will insure the quickest and most widespread commercial adoption of new developments. This would reestablish the parallelism between military and civilian technology that makes



Said One Industrialist to Another:

"Take my tip, Bill... 'Look Ahead—Look South.' No other section of the country offers greater opportunities. It has the resources, markets, manpower... everything any business needs to grow and prosper."

The advantages the Southland offers industry are nothing new to far-sighted businessmen. They've already put thousands of busy factories in the territory served by the Southern Railway System. And hundreds more are on the way.

"I'm locating in the South for mighty convincing reasons," says one industrialist to the other.

"Look Ahead—Look South."

Ernest E. Morris
President



SOUTHERN RAILWAY SYSTEM

The Southern Serves the South

ified
war

policy
ices.
made
prop-
but
the

that,
the
ct is
val-
is its
shes,
mble,
nder

every
ctor
t he
the
er a
ving
ation
for
files
t out

work
the
ctor
or a
y a
alty
the

olicy
th a
been
ch a
full

y as
busi-
g in
ticu-
uted
proj-
peri-
con-
ment

may
hard
n it
rhaul
attack
ct.19
will
f re-
tracts
al re-

the
of a
ckest
ndop-
ould
mili-
akes

1946



Birth of a new sales-star on the national wine-horizon

Not so very long ago, the sales-experts were amazed and more than a little mystified by the swift success of Franzia High-Toned Wines.

Amazed—because they watched this newcomer boldly break into market after market dominated by long-established, powerfully-advertised brands of wine and win an ever-brighter place for itself.

Mystified—because they saw this new aspirant for national wine-leadership succeeding where so many others had tried and failed.

The experts sought for the secret—and found it not alone in the quality of the wines made by Franzia Bros. Winery, but also in the sound, ingenious plan of action created by *Engineered Advertising*.

Working from the start with the five Franzia brothers—sons of a grand old California family of vintners—*Engineered Advertising* helped to study market-opportunities; secure alert distributors; create a label that

sold on sight; devise hard-hitting campaigns of advertising and merchandising; and crystallize the distinctive value provided by Franzia Wines into the one short, memorable, sales-making phrase, "*High-Toned*."

Today, Franzia High-Toned Wines are popular sellers in many key markets; the Franzia franchise is clamored for by distributors in every section of the country; and the Franzia Winery in Ripon has been expanded and almost doubled in storage-capacity to meet the demand for Franzia Wines.

Engineered Advertising consistently provides our clients with what competitors do not possess. May we talk it over with you?

Brisacher, Van Norden & Staff, Advertising Engineers since 1919. Main offices in New York, San Francisco and Los Angeles; Radio Headquarters, Hollywood; Service offices in Chicago, Portland, Seattle and London, England.

for ready conversion of industry to war.

- **Objections of Business**—Meanwhile, there are several comparatively minor points of dispute between business and the military contracting officers. Some businessmen feel that the license granted to the government ought to be restricted to military uses, fearing commercial use of the patents by such organizations as TVA.

Many firms would also like to get out from under the present requirement that they obtain from subcontractors patent arrangements at least as favorable to the government as those of the prime contract. They argue that this rule interferes with subcontractual arrangements entered into before the prime contract was set up.

- **Many Doors**—For the businessmen interested in taking on development work there is today no central place to go. Such work is the responsibility of the various bureaus of the Navy and branches of the Army. A coordinating organization is gradually being set up (BW—Oct. 26 '46, p7) but is not very far along.

Furthest advanced is the Research & Development Division of the Army General Staff, organized last summer under Maj. Gen. H. S. Aurand. Gen. Aurand has started to require clearance with his office of all development projects.



EASY INFLATION

A handy portable tank now permits tire service at the gas pump, obviates maneuvering the auto to reach the pressure hose—generally in an inaccessible spot. Originally an oxygen tank for high-flying pilots, the war-surplus item can withstand pressure of 500 lb. per sq. in. Two ex-service-men, operating as B. & L. Products Co., 338 Peters St., S.W., Atlanta, are reported converting 150 units daily.



**SAFETY—that fits as well
as a turtle's shell**

*The Policy Back of the Policy—Our way of doing business
that makes your interests our first consideration*

"LOOKIT that old turtle cover up, Sandy! You can't hurt him under that shell, 'cause it's just made to order to keep him safe!"

"Made to order," too, is the Safety Engineering Service that goes with Hardware Mutuals workmen's compensation and liability insurance. This *plus service* is safety-tailored to individual needs.

As a part of the *policy back of the policy*, our Safety Engineering Program is designed to lower costs through accident prevention. It eliminates hazards peculiar to your own plant—with practical inspection suggestions and expert foreman and employee safety training.

Economy, also, is assured by the *policy back of the policy*. Care in selecting risks has enabled Hardware Mutuals to return over \$100,000,000 in dividend savings to policyholders since organization. And Hardware Mutuals Claims

Service, with its promptness, sympathy and fairness, is a strong factor in building good employee relations.

Savings, service and improvements in safety have characterized all types of Hardware Mutuals insurance . . . Licensed in every state, offices coast to coast. Send for our free booklet, "Industrial Safety Procedure."

*Automobile, Workmen's Compensation and other forms of
non-assessable Casualty and Fire Insurance*

Hardware Mutuals

FEDERATED HARDWARE MUTUALS

*Hardware Dealers Mutual Fire Insurance Company, Home Office, Stevens Point, Wisconsin
Mutual Implement and Hardware Insurance Company, Home Office, Owatonna, Minnesota*

HARDWARE MUTUAL CASUALTY COMPANY

Home Office, Stevens Point, Wisconsin

© 1946, Hardware Mutuals

Tax Cuts vs. Balanced Budget

Republican Congress, pledged to cut federal levies, faces delicate job of paring government's "controllable" expenditures. Defense costs, veterans' care are huge part of fixed expenses.

One of the first—and probably one of the toughest—jobs that will face the new Republican Congress next January will be setting up the federal budget for the fiscal year beginning July 1, 1947.

Budget-making is hard work even in the best of times. On this occasion, it probably will take some extraordinary pulling and hauling because the Republicans have taken over Congress on a pledge to balance the budget and reduce taxes simultaneously.

• **Knutson Schedule**—Harold Knutson, hard-headed chairman-to-be of the House Ways & Means Committee, already has promised to bring in a bill cutting taxes on individual incomes in 1947 by a straight 20%. This would be followed by a bill knocking out wartime boosts in excise taxes, effective July 1, 1947.

After that, according to Knutson's timetable, Congress would settle down to consider long-range revision of the tax system, including reduction of corporate taxes and further adjustment of levies on individuals.

• **Assumptions**—Trimming the income tax 20% would cut federal revenues roughly \$3,600,000,000 a year if national income remained at its present level. Reducing excises would cost about \$2 billion.

The present tax system is yielding upwards of \$40 billion a year. Hence, to make the \$5,600,000,000 cuts that Knutson proposes, the Republicans must assume two things:

(1) That federal expenditures in fiscal 1948 can be held to \$34 billion or less and (2) that there will be no drop in national income severe enough to bite deeply into tax yields.

• **Chopping the Budget**—As far as the budget goes, Republican plans are even more ambitious than the situation demands. Sen. Robert A. Taft, who may become chairman of the tax-making Senate Finance Committee, thinks the budget can be hacked down from \$41,500,000,000 this year to a flat \$30 billion in fiscal 1948 and to \$25 billion after that.

His breakdown of the proposed \$25-billion budget looks like this:

Armed services	\$10 to \$12 billion
Interest on debt	\$5 billion
Veterans	\$6 billion
Federal departments	\$2 billion
All other	\$1 to \$2 billion

• **Doubters**—Old hands at budget making were inclined to shake their heads.

The Taft budget, they point out, would leave only \$2 billion or so to spread over international finance, aids to agriculture, social security, public works, and similar items which are costing the government some \$10 billion in the current fiscal year.

Veteran budgeteers are likewise dubious about Taft's prediction of a \$30-billion limit on expenditures in fiscal 1948. Even before elections, President Truman was committed to a rigid economy policy. The budget he will submit to Congress next January certainly will be a painful thing to cut. And as things look now, the Administration's proposed budget will run between \$32,800,000,000 and \$34,600,000,000.

• **Two Kinds of Expense**—As the budget experts see it, federal expenditures fall into two classes. There is the more or less "frozen" budget and a relatively "controllable" budget.

The frozen budget can't be cut materially either by the Republicans or by the Democrats. The controllable budget can be trimmed, but only within certain limits.

• **The Frozen Budget**—Interest on the public debt will be a fixed item, not only for 1948 but for many years to come.

Obligations to veterans (as defined by the G.I. bill of rights and legislation providing for veterans of previous wars) have passed their peak. In the current fiscal year, the government is spending about \$6,200,000,000 on veterans. With the reduction of such benefits as job-training payments and educational allowances the total will drop. For fiscal 1948 it is expected to be about \$5-billion and might run as low as \$4-billion.

The national defense item in the 1948 budget still can't be estimated. In the current fiscal year it is running \$18,500,000,000. Some \$2,400,000,000 of that represents terminal-leave pay for enlisted men, an item that won't appear in next year's budget. Both the President and Congress are looking for other places to cut, but with international tension still high, the Army and Navy can put plenty of pressure behind their demands. The best guess as to next year's defense expenditures is \$15 billion.

An item which will drop sharply as the carryback provisions of the excess-profits tax law expire is refunds on taxes. In fiscal 1948 it probably will

WHERE DO YOU
FIT IN THIS
DECAL PICTURE?

Check the daily
influence of
MEYERCORD
Decals



AND HUNDREDS OF OTHER USES

**The
MEYERCORD
Co.**

World's Largest Decal
Manufacturer
CHICAGO 44, ILLINOIS

There's a Built-in Quality
market for
DOWNSPOUTS - GUTTERS - ELBOWS
OF **Superior's**
STAINLESS STRIP STEEL

- and throughout
the modern home . . .

Stainless means quality, in every application for better living in today's American home. And SUPERIOR Stainless Strip Steel has a special meaning of quality to the fabricator. Superior's long coils are uniform grade by grade; in composition, dimensions, temper and finish desired, you get what you want every time. Make Superior your choice for the coming mass stainless demand!

For your files — the detailed
Superior Stainless Brochure.

Superior Steel



FOR
Perfect Shipment or Storage
 ANYWHERE IN THE WORLD!

COCOON

the amazing new protective packaging applied with a spray gun, affords perfect protection against the hazards of global shipment and storage in the open for long periods! The improved "coolie pack" is just one example of the use of COCOON. In this case, in addition to complete protection, COCOON means an increase in the net pay load of *more than 50%* —through the reduction of the weight of the container itself. This is important where human portage or air shipment is involved. There are many reasons for

COCOON being the ideal protective packaging for anything from a ball bearing to a locomotive. Here are a few: Spray gun and air supply only equipment needed . . . No rust preventive treatments are necessary . . . Permits packaging of equipment "ready-to-use" . . . Resists attack by major mildew and mold groups . . . Tensile strength 2000 p.s.i.; elongation 200% . . . Won't soften at plus 180°F.; remains flexible at minus 40°F. . . Has extremely low moisture-vapor transmission rate . . . Makes packaging easy regardless of size and shape complications . . . Eliminates need for any pre-designed forms or fabrications . . . Easily stripped from equipment in long, continuous sheets.

No matter what *your* protective packaging problem involves—electric fans, appliances, machine tools, precision instruments, small parts or huge machines—it will be to your advantage to find out what COCOON can do for you. Submit your problem to us for analysis.

R. M. Hollingshead Corporation, *Coatings Division*, Camden, N. J.; Toronto, Canada.

PACKAGE WITH COCOON

A PRODUCT OF

Hollingshead

LEADER IN MAINTENANCE CHEMICALS



Applied with spray gun Strips off like banana peel

run
is \$
• The
the bud
leav
less
cide
entir

In
item
to a
secu
sions
activ
these
year,
maria

(1)
prob
but
already
year's
expect
fiscal
tiated
heavil
loan.
callin
subscr
the "
1948
as \$3

(2)
also w
more
the go
payin
tural
culture

BUSIN

LIMI

Washington Forecasts for Fiscal '48

The federal budget is due to drop next year, but Congress will have to do some drastic hatchet work to reach the \$30 billion goal that the Republicans have set for themselves. Washington's fiscal experts think the Administration will propose a budget

of \$34,800,000,000 to \$36,600,000,000 for the fiscal year ending June 30, 1948, and let Congress take responsibility for further pruning. Here is the probable 1948 budget as compared with fiscal 1947, the current year (in billions):

Relatively "Frozen" Budget

	Fiscal 1947	Fiscal 1948
Interest on national debt.....	\$ 5.0	\$ 5.0
Veterans' benefits and pensions.....	6.2	4.0 to 5.0
Refunds on taxes.....	1.8	0.5
National defense.....	18.5	15.0
Total "frozen" budget.....	31.5	24.5 to 25.5

Relatively "Controllable" Budget

	Fiscal 1947	Fiscal 1948
International finance.....	\$ 4.2	\$ 3.0
Aids to Agriculture.....	1.2	1.2 to 1.5
Social security, relief, retirement.....	1.2	1.2
Public works.....	0.9	1.0 to 1.5
General government.....	1.9	1.7
Miscellaneous.....	0.6	0.2
Total "controllable" budget.....	10.0	8.3 to 9.1
Total federal budget.....	\$41.5	\$32.8 to 34.6

run about \$500,000,000. This year it is \$1,800,000,000.

• **The Controllable Budget**—This year the relatively controllable part of the budget runs around \$10 billion. This leaves scant room for any cutting unless the federal government should decide to get out of a number of fields entirely.

In the controllable category are such items as loans to foreign countries; aids to agriculture; expenditures for social security, relief, and retirement pensions; public works; and the routine activities of the government. Some of these will require larger outlays next year, others smaller. They may be summarized as follows:

(1) U. S. loans to foreign countries probably passed their peak this year, but withdrawals against commitments already made will show up in next year's budget. The Export-Import Bank expects to disburse about \$1 billion in fiscal 1948 against loans already negotiated. The British will be drawing heavily against their \$3,750,000,000 loan. The International Bank may be calling for additional payments on our subscription. One thing with another, the "international finance" item in the 1948 budget may easily run as much as \$3 billion.

(2) Federal assistance to agriculture also will come high. There will be no more subsidies to food processors, but the government may soon have to start paying out money to support agricultural prices. The total for aids to agriculture next year probably will run be-

tween \$1,200,000,000 and \$1,500,000,000.

(3) No substantial change is expected in the \$1,200,000,000 outlay that is made for social security, relief, and retirement pensions.

(4) Theoretically, expenditures on public works could be trimmed, but local pressure against any such cuts is enormous. Next year's budget probably will allow from \$1 billion to \$1,500,000,000 vs. \$900,000,000 allowed this year.

(5) The "general government" item, covering the routine federal activities, offers many opportunities for minor economies. About the best anyone can expect is to squeeze out \$200,000,000, bringing the total down to \$1,700,000,000 next year.

• **The Hard Part**—This gives a total controllable budget of \$8,300,000,000 to \$9,100,000,000 for fiscal 1948. Adding in the frozen budget, which will run \$24,500,000,000 to \$25,500,000,000, the experts get a total of \$32,800,000,000 to \$34,600,000,000.

The lower figure gives enough elbow room for the tax cuts the Republicans propose, but the larger one would leave no margin for error or for a possible drop in tax yields accompanying a business recession.

If the new Congress wants to play safe, it probably will have to pare down the total by at least another \$1 billion. Where the paring is to be done is a question that the Administration will be very happy to leave to the Republicans.

"BEST VALUE FOR THE MONEY"



SUNROC

Water Coolers

This Sunroc Water Cooler—Model NM3B—is specially designed for installations where demand is heavy, with operating temperatures normal. It delivers 15 gallons of cooled drinking-water per hour; is equipped with two bubblers and a glass-filler.

In a highly competitive field, Sunroc Coolers have won and held the reputation of offering "the best value for the money." Lowest cost per year—proved by performance—is the all-important factor that has sold Sunrocs by the thousands.

Business, industrial, and institutional users, now selecting from Sunroc's full post-war line, buy with an eye to sound long-term investment. Most Sunroc Coolers are now available in a wide range of modernly styled AC and DC models. Your Sunroc dealer is ready to survey your needs, install the coolers you require. Write Dept' BW-11, Sunroc Refrigeration Company, Glen Riddle, Pa.



"There's nothing like a cool drink of water!"

SUNROC

Water Coolers

GLEN RIDDELL, PA.



Split-Second Switchman

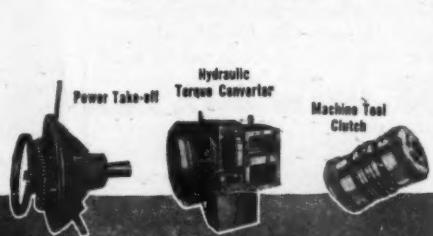
One false move...one split-second mistake in selecting the right switch, the right signal...and the yard jams. Roaring trains come to a grinding stop. Signal boards up and down the line flash red. It is long experience that has taught this railroad tower signalman how to keep traffic moving safely and surely through his "plant"...long experience in selecting the right series of switch levers at the right time.

Experience and selection play an important part too in designing, building and applying the industrial clutches and hydraulic drives that control the power in today's powered machines and equipment. For 28 years, the

Twin Disc Clutch Company has specialized in solving industrial power control problems by providing exactly the right clutch or drive for every type of installation so that powered equipment runs smoother, longer.

This experience and the proved performance of Twin Disc Clutches is one reason why today so many leading manufacturers turn their friction clutch and hydraulic drive problems over to Twin Disc Clutch Company Engineers. Why not ask for full information on Twin Disc Products for your powered products.

TWIN DISC CLUTCH CO., Racine, Wisconsin
Hydraulic Division, Rockford, Illinois



TWIN DISC
CLUTCHES AND HYDRAULIC DRIVES

SPECIALISTS IN INDUSTRIAL CLUTCHES SINCE 1918

Field Retrenches

New York's PM takes ads, Chicago Sun cuts staff as "angel" says time has come for ventures to pay their own way.

Tumult now racking Marshall Field's newspapers proves that there is a bottom to every barrel and a limit to the benevolence of every angel. Last week Ralph Ingersoll resigned as editor of New York's pinkish PM, giving as his reason the abandonment of his no-advertising policy. Simultaneously Wallace Brooks, advertising director of Field's Chicago Sun, announced that he was through. Drastic cuts in the Sun's staff came to light two days later.

- **Enough Is Enough**—It means that Field is finally fed up, that he is taking steps to lessen the drain of the two losers on his inherited millions. In the case of PM, he hopes that advertisers will reduce if not wipe out the deficit.

First copy consisted of "spots" (pictures and blurbs of radio performers) voluntarily offered by the Columbia Broadcasting System. Two days later PM carried eleven ads totaling three and a quarter columns.

PM's first advertising manager is Louis Frenkel, who has been with Field's Chicago Sun since its birth in 1941. Prior to that he worked for many years in the advertising departments of several Hearst papers.

- **Rates Compared**—PM's base rate for display advertising is 60¢ a line; for amusements, 60¢; for classified, 70¢. The base rate for display in the New York Sun, one of PM's competitors in the evening field, is 81¢. But this doesn't give a true comparison. Newspaper advertising men usually talk in terms of the "milline" rate—rate per line per million circulation. PM's milline rate, excluding the week-end issue, is about \$3.50; the Sun's, about \$2.70.

It is generally admitted that high rates, plant and newsprint limitations, and insufficient circulation will keep out department store ads, the mainstay of conventional newspapers. Amusements appear to be PM's best bet.

- **Slogan in Limbo**—PM's approach to advertisers is a bit sheepish. Its reversal of policy means abolition of the battle cry, "No paid advertising in PM," which expressed its aversion to business influence (BW-Jun. 22 '40, p20). In the polite exchange of letters which marked Ingersoll's departure, Field wrote:

"PM's existence cannot permanently depend on whether one man happens to wish to continue to support it... Its permanence can only be assured if

8' x 16' Hearth Nitriding Furnace.
Photo by: Commercial Steel Treating
Corporation, Detroit, Michigan.

Process:nitriding engine blocks
Requirements:accurate temperature control
uniform heat distribution

Result:no rejects
low maintenance costs
clean manufacturing plant

Fuel:

GAS



Capacity and
product specifications for
the GAS-fired furnace include:

- Temperature.....975 degrees F.
- Allowable Variation.....±5 degrees F.
- Process Time.....96 hours
- Case Depth.....0.025 inches
- Atmosphere Supply.....Ammonia
- Production Rate.....200 Tons per Month

Commercial Steel Treating Corporation demands accurate temperature control and uniform heat throughout the chamber of its heavy-duty nitriding furnace. GAS fulfills these requirements; five years of successful operation supply the proof.

GAS, dependable fuel for industrial processing operations, meets the most exacting control and heating requirements. Low maintenance costs and cleanliness characterize GAS-fired installations.

You will want to study facts and figures on the use of GAS in your construction or modernization planning. The Industrial Representative of your local Gas Company has a wealth of useful information. He's as near as your telephone; he knows the answers.

Visit the A.G.A. Combined Exhibit of

INDUSTRIAL GAS EQUIPMENT
17TH NATIONAL POWER SHOW

Grand Central Palace • New York City • December 2-7

MORE AND MORE...

THE TREND IS TO GAS.

FOR ALL
INDUSTRIAL HEATING

AMERICAN GAS ASSOCIATION
420 LEXINGTON AVENUE, NEW YORK 17, N.Y.



Split-Second Switchman

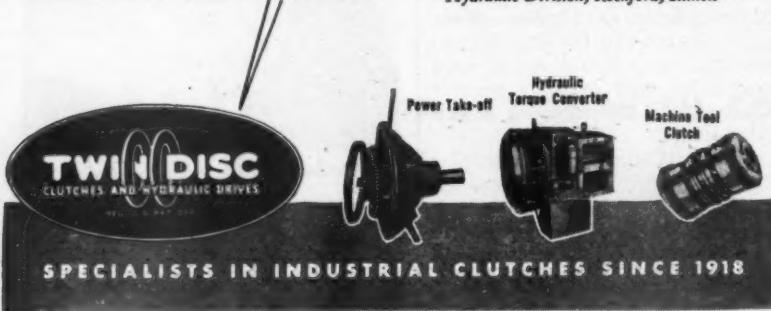
One false move...one split-second mistake in selecting the right switch, the right signal...and the yard jams. Roaring trains come to a grinding stop. Signal boards up and down the line flash red. It is long experience that has taught this railroad tower signalman how to keep traffic moving safely and surely through his "plant"...long experience in selecting the right series of switch levers at the right time.

Experience and selection play an important part too in designing, building and applying the industrial clutches and hydraulic drives that control the power in today's powered machines and equipment. For 28 years, the

Twin Disc Clutch Company has specialized in solving industrial power control problems by providing exactly the right clutch or drive for every type of installation so that powered equipment runs smoother, longer.

This experience and the proved performance of Twin Disc Clutches is one reason why today so many leading manufacturers turn their friction clutch and hydraulic drive problems over to Twin Disc Clutch Company Engineers. Why not ask for full information on Twin Disc Products for your powered products.

TWIN DISC CLUTCH CO., Racine, Wisconsin
Hydraulic Division, Rockford, Illinois



Field Retrenches

New York's PM takes ads, Chicago Sun cuts staff as "angel" says time has come for ventures to pay their own way.

Tumult now racking Marshall Field's newspapers proves that there is a bottom to every barrel and a limit to the benevolence of every angel. Last week Ralph Ingersoll resigned as editor of New York's pinkish PM, giving as his reason the abandonment of his no-advertising policy. Simultaneously Wallace Brooks, advertising director of Field's Chicago Sun, announced that he was through. Drastic cuts in the Sun's staff came to light two days later.

• **Enough Is Enough**—It means that Field is finally fed up, that he is taking steps to lessen the drain of the two losers on his inherited millions. In the case of PM, he hopes that advertisers will reduce if not wipe out the deficit.

First copy consisted of "spots" (pictures and blurbs of radio performers) voluntarily offered by the Columbia Broadcasting System. Two days later PM carried eleven ads totaling three and a quarter columns.

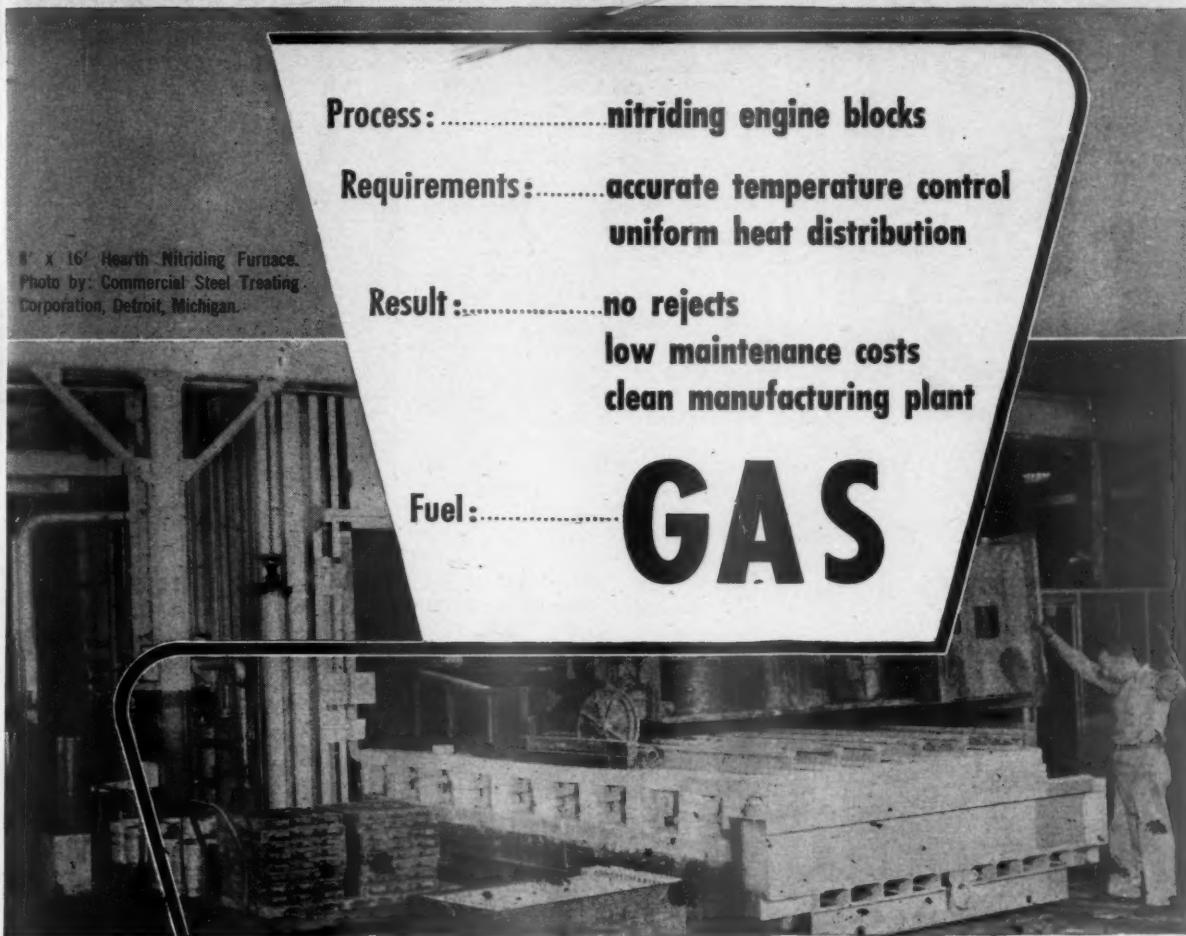
PM's first advertising manager is Louis Frenkel, who has been with Field's Chicago Sun since its birth in 1941. Prior to that he worked for many years in the advertising departments of several Hearst papers.

• **Rates Compared**—PM's base rate for display advertising is 60¢ a line; for amusements, 60¢; for classified, 70¢. The base rate for display in the New York Sun, one of PM's competitors in the evening field, is 81¢. But this doesn't give a true comparison. Newspaper advertising men usually talk in terms of the "milline" rate—rate per line per million circulation. PM's milline rate, excluding the week-end issue, is about \$3.50; the Sun's, about \$2.70.

It is generally admitted that high rates, plant and newsprint limitations, and insufficient circulation will keep out department store ads, the mainstay of conventional newspapers. Amusements appear to be PM's best bet.

• **Slogan in Limbo**—PM's approach to advertisers is a bit sheepish. Its reversal of policy means abolition of the battle cry, "No paid advertising in PM," which expressed its aversion to business influence (BW-Jun.22'40, p20). In the polite exchange of letters which marked Ingersoll's departure, Field wrote:

"PM's existence cannot permanently depend on whether one man happens to wish to continue to support it... Its permanence can only be assured if



Process: nitriding engine blocks

Requirements: accurate temperature control
uniform heat distribution

Result: no rejects
low maintenance costs
clean manufacturing plant

Fuel: **GAS**

**Capacity and
product specifications for
the GAS-fired furnace include:**

- Temperature 975 degrees F.
- Allowable Variation ± 5 degrees F.
- Process Time 96 hours
- Case Depth 0.025 inches
- Atmosphere Supply Ammonia
- Production Rate 200 Tons per Month

Commercial Steel Treating Corporation demands accurate temperature control and uniform heat throughout the chamber of its heavy-duty nitriding furnace. GAS fulfills these requirements; five years of successful operation supply the proof.

GAS, dependable fuel for industrial processing operations, meets the most exacting control and heating requirements. Low maintenance costs and cleanliness characterize GAS-fired installations.

You will want to study facts and figures on the use of GAS in your construction or modernization planning. The Industrial Representative of your local Gas Company has a wealth of useful information. He's as near as your telephone; he knows the answers.

Visit the A.G.A. Combined Exhibit of

**INDUSTRIAL GAS EQUIPMENT
17TH NATIONAL POWER SHOW**

Grand Central Palace • New York City • December 2-7

MORE AND MORE...

THE TREND IS TO GAS.

FOR ALL
INDUSTRIAL HEATING

AMERICAN GAS ASSOCIATION
420 LEXINGTON AVENUE, NEW YORK 17, N.Y.

Looking Back



Going Ahead

READ THE ENGAGING

Elliott

SUCCESS STORY IN THESE



... FREE

BUSINESS BOOKS!

One of the rare books that makes a business story *interesting*, "Unscrewing the Inscrutable" describes understandably many of the ingenious inventions that earned 211 patents for Sterling and Harmon Elliott during the past 70 years.

The sequel, "The Sterling Elliott Family", was written to satisfy a demand for more information on the home and family life of Sterling Elliott.

Elliott's inventive genius paid off in results — modern addressing machines whose many patented superiorities make them highly preferred. Reading the new "Elliott Addressing Machine Catalog" shows you how Elliott can streamline your business methods today . . . and tomorrow.

To obtain your FREE set of three books, simply write, on your business letterhead, to the Elliott Addressing Machine Company, 151 Albany Street, Cambridge 39, Mass.



it is self-supporting. I cannot justify to myself—or, indeed, to the public—the continuous meeting of the deficits of an institution which, if it is to fulfill its function, should pay its own way."

• **No-Ad Policy**—Ingersoll's exit is the climax of many internal tensions. When the crusading paper was started in 1940, the idea—and it was Ingersoll's idea, originally—was that the 5¢ price would make advertising revenue unnecessary. (Other New York dailies were then 2¢ or 3¢; all of the evening papers have since gone up to 5¢.)

For a number of years, PM plugged along in the red. Then, for a time during 1944 and 1945, it made money. But PM's employees, taking to heart the boss' liberal ideas on wages in general, negotiated substantial salary increases. This and other boosts in cost put the paper's finances back on the wrong side of the ledger.

• **Appeal for New Readers**—Last summer Ingersoll broadcast a frank cry for help. While losses continued to mount he asked for 100,000 additional readers which, he estimated, would prevent a retreat on the advertising issue. Circulation then averaged 165,000 daily. He admitted that Field had already spent \$4,318,000 on the paper.

The appeal failed. PM's circulation stood still.

To add to Ingersoll's troubles was the rumored intraoffice tension between him and John P. Lewis, ever since Ingersoll returned from the Army. Lewis, managing editor, ran the paper during Ingersoll's absence. With Ingersoll out, Lewis has stepped back up to the top.

• **Tough Going in Chicago**—In the Chicago sector, the Sun's advertising solicitors found that Field's charm and sincerity, his millions, and the magic of his name were not enough. PM was one of many handicaps. The Sun's advertising solicitors found irate prospects continually citing PM's radicalism as a reason for not buying space in the Sun. The new paper was bucking the Chicago Tribune, whose dominance was founded on airtight news coverage and a line of comics that had become part of the city's mores.

The Sun's early editorial efforts were loose and ineffective. A purge some years back cut many unnecessary expenses and tightened editorial operations. But the vast financial hemorrhage continued. In the first six months of 1946, according to figures compiled by Media Records, the Tribune carried an over-all total of 14,382,255 lines of advertising, the Sun 6,732,080.

• **The Wallace "Line"**—Recently, new exasperations have faced the Sun's business staff. Consistent if not prudent, Field veered to the left with Henry Wallace. His editorials and news stories display what a host of enemies call appeasement of Russia.



TICKLISH BUSINESS

Five generations ago, the Smith Brothers hoisted a cough drop business to prominence by their beards. Today's Smith brothers, R. L. (left), and W. W. Smith, II, though shaven, have faith in the attraction value of chin growth. They and all their men workers are pledged to drop razors on New Year's, not shave until March. The whisker crop will honor the firm's one-hundredth anniversary.

Last week's firings indicated that Field might be losing patience. A statement authorized by his office said that, if the five-year-old Sun was to attain success and permanency in the morning field, a "survey of operations" was necessary.

• **Staff Cuts**—The statement insisted that there would be no change in coverage of domestic and foreign news. But the grapevine reports that foreign correspondents have been cut to three, the Washington bureau reduced from eleven to four. Comparable numbers have been discharged in the local editorial, circulation, and advertising departments.

Happenings on the Sun and PM are highly significant because Field is a kindly person who hates to fire anyone. Dismissed employees report that they received double severance pay.

• **What of the Future?**—The two-front crisis raises the question of whether Field is considering throwing his papers overboard. His great friend, Roosevelt, is gone; the New Deal is reduced to an apologetic whisper. Results of the recent election certainly did not encourage the continuance of liberal investments that must have put a painful dent in the Field bankroll.



There's steel in their blood

There must be something about making Armco steels that gets into a man's blood. Not only do Armco men stick with their jobs twenty, twenty-five — even forty-five years — but 90% of the Armco men discharged from the armed services came back to their jobs. This is far in excess of the national average for manufacturing industries.

Why did so many Armco service men return? Sure, they like to hear the roaring furnaces, the hissing molten steel as it rushes into the giant ladles, the rumbling mills. But there is a deeper reason: They know that here they are encouraged to develop their abilities and earning power.

Executives are not brought in from the outside; they come up from the ranks. Armco men are more than steel-makers — they are specialists.

Every Armco man is proud to be in the business of making not just steel but *special-purpose* steels . . . steels that have been developed to do hundreds of jobs superbly well when fashioned by manufacturers into equipment for homes, farms and industry.

This is the attitude that stamps an Armco man . . . the spirit that gives you that *something extra* in quality steels and in helpful Armco service. The American Rolling Mill Company, 4091 Curtis St., Middletown, Ohio. Export: The Armco International Corporation.



THE AMERICAN ROLLING MILL COMPANY

• SPECIAL-PURPOSE SHEET STEELS • STAINLESS STEEL SHEETS, BARS AND WIRE

READERS REPORT:

Corn Prospects

In reading your Nov. 2 Outlook, I wondered about your comment on corn and hog prices. I will admit that we have a good corn crop all through the Corn Belt. However, during the last summer the government jacked prices up so high that they siphoned off most of the old corn that is normally carried over on the farm. Did you take into consideration the fact that it will require all the corn produced above the normal crop this year to fill the empty bin that makes the carryover from year to year?

H. J. Adams

Silver City, Ia.

• Empty cribs at the end of the old-crop season are, as you indicate, rather frightening. However, it is our careful judgment that we should have little or no real trouble over the next year now that ceiling prices are a thing of the past. The 1946 crop is not only the largest on record, but it is generally of good quality. Thus we don't have to lose feed value the way we did a year ago, feeding wet corn in a hurry so as not to let it spoil.

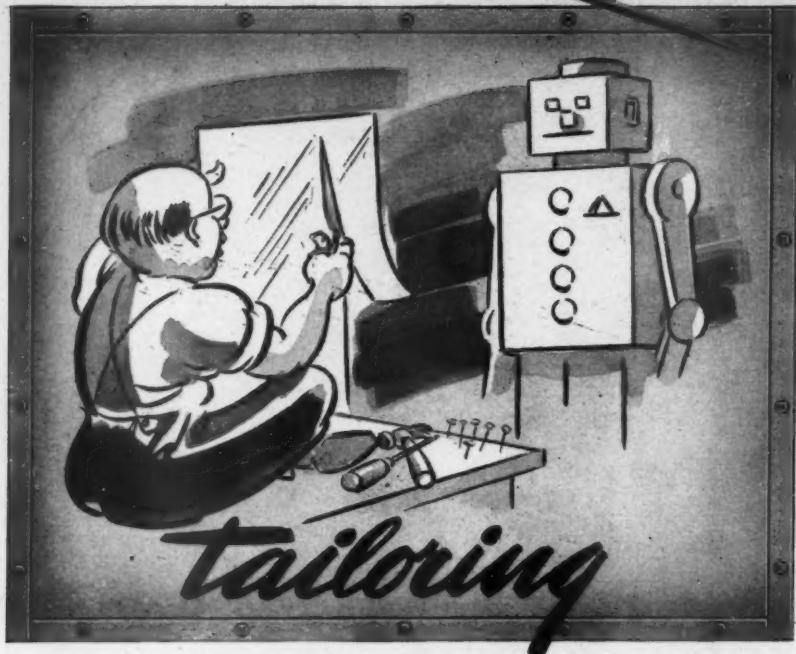
On top of that, we have fewer animals to feed. The Dept. of Agriculture figures, in fact, that the total amount of feed per livestock unit this season is the highest on record. Dairy and poultry numbers in the eastern feed-deficit area have been reduced along with hog numbers in the Corn Belt.

Lastly, the number of hogs slaughtered the last couple of weeks has been enormous (1,386,000 through federally inspected plants in the week ended Nov. 2 and 1,432,000 the week before), indicating that farmers are selling rather than feeding. That means fewer to feed later on. Incidentally, while these hogs averaged a pretty good weight, they were eight to ten pounds lighter than in most recent weeks, and even more than that below what they dressed out a year ago.

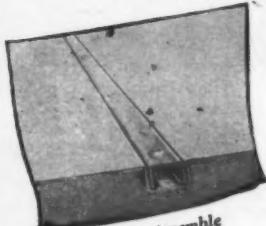
Orchid for Robert R. Young

Will you kindly convey to Robert R. Young of Alleghany Corporation my appreciation and thanks for his open letter to Alfred Schindler (then Acting Secretary of Commerce) on the railroads' needs for increased freight rates. As you know, Mr. Young ran this in advertising space in *Business Week* ("Our Railroads Are a Vital Part of Our National Security": BW—Oct. 5 '46, p71).

As a very small stockholder in three railroad companies and a citizen with



the outside of your product ...that's our business



Easy to Assemble



LS Venetian Blind Laundry



LS Refrigerator Boxes

A crane cab as big as a house . . . a moisture-proof housing for delicate instruments, protective guards and supports for tools and machines—Refrigerator Buildings—Food Lockers—Drying Rooms—Cabinets for radar equipment, scanning devices—and other electronic equipment.

These are just a few of the applications of Lindsay Structure . . . a few instances where engineers with foresight have capitalized one or more of the many advantages of this modern method of light sheet metal construction:

Lightness—Great Strength—Ease of KD Shipping—Ease of Assembly. Completely prefabricated—no cutting—no riveting—no welding—no waste.

Let us show you how you can take advantage of these features in the production of your equipment. The Lindsay Corporation, 1726 25th Avenue, Melrose Park, Illinois. Sales Offices: Chicago, New York, Atlanta, San Francisco, Montreal.

**L S LINDSAY
STRUCTURE**

U. S. Patents 2017629, 2263510, 2263511
U. S. and Foreign Patents and Patents Pending

THE MODERN METHOD OF LIGHT SHEET METAL CONSTRUCTION



"It's Just Plain Horse-Sense ... applied to rising maintenance, sir!"

A SOUND DECISION today on the selection of valves will effect great savings tomorrow in maintenance expense, which is rising steadily along with mounting wage levels and material costs.

The average plant has many thousands of valves. The cost of maintaining these valves in good repair may well exceed their total original cost — *if they are inferior valves*. However this same maintenance cost can be held to an almost negligible minimum — *if they are good reliable valves*. That's why it's just plain horse-sense to install the best, most endurable and de-

pendable valves... Jenkins Valves!

With Jenkins Valves you can be assured of the most reliable operation at the lowest cost — not just for a few months, but for many years to come — for Jenkins superior craftsmanship, quality of materials, and design make them famous for long, trouble-free service.

Millions of Jenkins Valves now in operation prove this — yet you pay no premium for this extra value. *Sold Through Reliable Industrial Distributors Everywhere*. Jenkins Bros., 80 White Street, New York 13; Bridgeport; Atlanta; Boston; Philadelphia; San Francisco; Chicago. Jenkins Bros., Ltd., Montreal; London.

LOOK FOR THIS  DIAMOND MARK

SINCE *Jenkins Bros.* 1864

JENKINS VALVES

For every Industrial, Engineering, Marine, Plumbing-Heating Service . . . In Bronze, Iron, Cast Steel and Corrosion-resisting alloys . . . 125 to 600 lbs. pressure



If your business needs more cash...



... learn how much more you can get, how little it costs and how long you can use it under our Commercial Financing Plan. Learn why manufacturers and wholesalers have used this plan to a total of more than One Billion Dollars in the past five years. Send for our new booklet, "A Better Way to Finance Your Business." No obligation. Just write or telephone the nearest Commercial Credit office listed below.

COMMERCIAL FINANCING DIVISIONS:
Baltimore, New York, Chicago, Los Angeles, San Francisco, Portland, Ore.



FINANCING OFFICES IN PRINCIPAL CITIES OF THE UNITED STATES AND CANADA

just ordinary common sense (I hope), I am plenty irked by the present Administration's attitude toward business in general and the railroads in particular.

From the same issue of your publication (Washington Bulletin, p7), of which we are constant readers, we learn that, while we in the printing business are having a hard time getting materials, the government is planning to build paper mills to get more paper (for propaganda?).

Charles B. Ayres
Omaha, Nebr.

• Washington claims that the paper is needed "for income tax and other forms," that heavy buying up of mills by large consumers is choking off response to government requests for bids.

Key Word

My sincere congratulations on the choice of words in *The International Outlook* (BW-Oct. 5 '46, p111). You say that the United States has given notice (through Navy Secretary Forrestal's statement on the presence of our fleet in the Mediterranean) that "Greece is not going to be handed over to covetous neighbors."

No other word than "covetous" could express the sad state of international affairs so completely and so exactly in reference to 99% of the so-called misunderstanding that exists between nations today and between their so-called leaders. . . .

Hitler started by persuading the Germans (through "Mein Kampf") of their right to covet their neighbors' lands and goods for themselves.

K. W. Beattie
The Beattie Corp.,
New York, N. Y.

Realty Reality

Your real estate report ("Realty Boom Loses Steam"; BW-Oct. 19 '46, p15) was a grand job. . . . It may not please some in the real estate field, but it is certainly a warning of things to come. Labor should be interested, for, if its people are smart, they will realize that they must give more in man-hour production on construction jobs, or they are not going to be building homes.

Last Friday I met with some of our Veterans of Foreign Wars members in Pittsfield, Mass., and found that they have been promised as much as \$350,000 as a loan on a multiple-unit housing project. Some of the boys are willing to pitch in and help build these units in order to reduce costs. . . .

The businessman who produces, or who finances the production of, building materials, or anyone else connected with housing can do a lot to help cut



"THE GREATEST
Single Contribution
TO RAILROAD PROGRESS"

Ever stop to think of the all-important contribution that railroads make to your comfort and welfare—not just when you make a trip, but in your everyday living? Practically everything you eat and wear and use travels by rail.

During recent years the railroads annually hauled for you (and for every other man, woman and child in the nation) 10 tons of freight, a distance of 500 miles. This per capita tonnage included over a ton of wheat, corn, cattle and other animal and agricultural products, *plus* over five tons of coal, oil, ore and other minerals, *plus* one-half ton of lumber and forest products, *plus* about three tons of varied manufactured goods. In the same period, the passenger traffic handled was equivalent to six trips, each one a hundred miles long, for every individual in the country.

Such feats are possible only because of a continuous program of development that has made American railroads the finest transportation machine in the world. And according to one leading executive, the "greatest single contribution to railroad progress" is a small item of equipment you may have never seen . . . the air brake.

This is the hundredth anniversary of the birth of George Westinghouse, whose genius gave the air brake to this country and to the world. The organization he founded is still dedicated to the advancement of transportation and to keeping brake developments in step with railroad progress. Whatever changes tomorrow may bring, there'll be a Westinghouse Air Brake to make your journey safe. Brakes are basic to railroad progress.

Westinghouse Air Brake Co.

WILMINGTON, PA.

HOW EMPLOYERS MUTUALS OF WAUSAU

help you to keep...forever... part of all you earn

Chen Wai Sze was quiet amidst the babble of voices in the old tea house beside the river.

The merchants were gathered, as was their custom, to exchange the day's news of their boats carrying precious cargo to distant cities.

Gravely old Chen listened as the merchants spoke courteous commiserations to the luckless one whose boat had capsized in the treacherous rapids, whirling to destruction the wealth accumulated through years of labor.

At last Chen spoke. "My honored brothers: the grass by the river bank is green, thick are the willow trees, always hungry are the rapids of the river. And fear of utter loss is constant in our hearts.

"Let us then bring our boats together. Let each of us place in each boat a small portion of his cargo. Thus when a boat must satisfy the maws of the river, each of us will lose a little, but none of us will lose his all."

So it was that the merchants shared the chances of loss on the great river that flows forever to the sea.

EMPLOYERS MUTUALS WRITE:

Public Liability . . . Automobile . . . Plate Glass . . .
Burglary . . . Workmen's Compensation . . . Fidelity
Bonds . . . Group Health, Accident, Hospitalization
and other casualty insurance . . . Fire . . . Tornado
. . . Extended Coverage . . . Inland Marine . . . and
allied lines of insurance. All policies are non-
assessable. • Branch offices in principal cities.
Consult your telephone directory.

The difference between income and expenditures is yours to keep—for ever—if you protect it.

That is the purpose of insurance—to protect the assets of a business or an individual.

An accident, a disastrous fire, a robbery might wipe out your investment or your savings for years to come. If you take a chance that disaster will not strike you or your business, you may save a little. But disaster does strike someone—hour after hour, day after day.

Through Employers Mutuals many thousands of policyholders share their chances of loss. Each pays his small share of the total cost; each gains protection against disaster. And, because Employers Mutuals are soundly and economically managed, each receives the benefits in dividends on every dollar he pays in.

Employers Mutuals Help Reduce Your Insurance Costs further through complete safety engineering service, industrial nursing, and health and safety training that do much to reduce the chances of accident and occupational disease. As the accident frequency rate goes down, so does the cost of your insurance.

What are your chances of loss?

If you are an employer: one out of every 25 men and women employed this year will be killed or seriously injured in accidents at work.

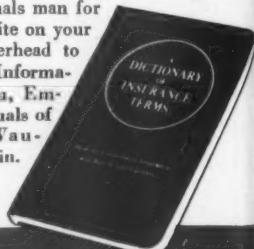
If you drive, or your employees drive: one out of every 28 motor vehicles will kill or seriously injure a man, woman or child this year. Hundreds of thousands of drivers will have accidents involving property damage totalling over \$600,000,000. How much could you afford to pay for one of these accidents?

Wherever you live: there will be a fire in one out of every 100 dwelling places this year, at an average cost of \$325.61.

Employers Mutuals representatives are trained to analyze both business and personal requirements for protection against loss. Ask for a survey of your coverage—what you have and what you need for full protection.

FREE... This

BIG little book that helps you understand insurance—"A Dictionary of Insurance Terms—How to Understand Insurance and Buy It Intelligently." Over 200 insurance terms defined, with examples. Ask any Employers Mutuals man for a copy, or write on your business letterhead to Insurance Information Bureau, Employers Mutuals of Wausau, Wausau, Wisconsin.



EMPLOYERS
MUTUALS
of WAUSAU

make Insurance Understandable

EMPLOYERS MUTUAL LIABILITY INSURANCE COMPANY OF WISCONSIN
ESTABLISHED 1911

EMPLOYERS MUTUAL FIRE INSURANCE COMPANY
ESTABLISHED 1905

Home Office: WAUSAU, WISCONSIN

costs and to maintain construction.
Julius Meltzer

Real Estate,
Springfield, Mass.

Backed Up

Your report on stainless steels (BW—Oct. 5 '46, p17) should be of great interest to your readers. It was gratifying to find my own beliefs as to present and future applications of stainless backed up by the solid and fact-finding Business Week. Of course, I am sure you have noted the typographical error which made one of the types of stainless steels contain 12% chromium and 30% carbon, when it should have been 0.30% carbon.

V. N. Krivobok
Development & Research Div., International Nickel Co., New York, N. Y.

- For more news about stainless steel, see page 64.

Kept Straight

Business Week's fine, factual handling of the story of our new wage contract and portal-to-portal pay plan (BW—Nov. 2 '46, p84) should do much to correct erroneous reports of a "14¢-an-hour general pay increase" that got into some of the papers.

L. H. Woodman
Director, Editorial Service, Dow Chemical Co., Midland, Mich.

You're Invited

This department will, from time to time, bring to readers information of interest that comes to its editors through letters from other readers.

"Information of interest" can be news or opinion falling anywhere within the field of Business Week's reporting and interpretation. It can be helpful amplification of, comment on, dissent from, or correction of specific statements in Business Week. It can be anything that the editors judge to be of concern to other readers of this magazine at the time of writing.

The editors of Business Week want what you can contribute—for use here as feasible and, at all times, for their guidance in doing a better job for you. Write Ralph Smith, Editor, Business Week, 330 West 42nd Street, New York 18, N. Y. (If your letter is for "confidential advisement," as many from readers always have been, you need only say so.)

Vertical Storage with BAKER TRUCKS

more than doubled Storage Facilities



Case History of
MERCK & CO., INC.
Manufacturing Chemists
Rahway, N. J.

Hy-Lift Truck illustrated has oversize "safety" platform providing greater carrying space. Operator can raise or lower load by remote control from the platform.

(Inset, above) Baker Low-Lift Truck moves capacity load easily up a 10% ramp 70 feet long.

(Below) This 4000 lb. Baker Truck does double duty. Besides its own big load, it hauls a loaded trailer.

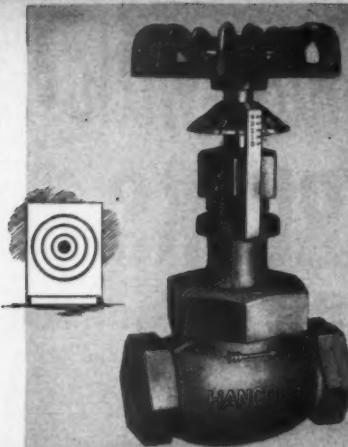
In 1926, Merck & Co., Inc. bought its first Baker electric truck. Twelve years ago they found that storage along horizontal lines provided inadequate warehousing space to meet increasing needs. Rather than build an addition, they decided to install a Baker Hy-Lift Truck to tier material, thus using available vertical storage space. So successful was this truck—not only in providing more storage capacity but also in speeding material movement—that more and more were installed, until today the Company operates a fleet of 18 Baker Trucks: Eleven Hy-Lift Trucks, two Low-Lift Trucks, two Fork Trucks, and three Platform Trucks. Besides obviating the need for new building by increasing existing storage facilities, these trucks are conserving time and manpower on handling operations throughout the plant.

A Baker Material Handling Engineer can help you make similar savings. Write for information.

BAKER INDUSTRIAL TRUCK DIVISION of the Baker-Raulang Company
2164 West 25th Street • Cleveland 13, Ohio
In Canada: Ralway & Power Engineering Corporation, Ltd.

Baker INDUSTRIAL TRUCKS

AVIATION



So much easier!

You need to maintain a definite amount of flow through your lines! To be able to shut off the valve and open it again to the exact point that determines the amount of flow!

With a Hancock Flo-Control Valve you can do this far more accurately than an expert rifleman can hit the bull's-eye. For you can return to a predetermined setting on a hairline that is within one-hundredth of a turn of the wheel.

In addition to the control feature, this valve is distinguished by the high quality of all Hancock Valves—which means it will serve for a lifetime and do its job accurately—unfailingly.

If you have any process or any situation where a designated flow is desired, then your problem is solved by the Hancock Flo-Control Valve.

Stocked and sold by leading Distributors everywhere. Write to them or to us for full information.



HANCOCK
Valves

MANNING, MAXWELL & MOORE, INC.
BRIDGEPORT 2, CONNECTICUT

Manufacturers of Hancock Valves, Ashcroft Couplers, C. Y. Valves, Safety and Relief Valves and American Industrial Instruments. Builders of Show Ball Cranes, Bulk Ford and Glass Lifter Trucks.

Battle for Air Freight

CAB hearings will highlight the showdown fight between regular scheduled airlines and the nonscheduled operators over a volume of business that is rapidly growing in importance.

Out of the Civil Aeronautics Board hearings which start Nov. 18 in Fort Worth, Tex., will come a welter of words and, eventually, decisions in the long fight over who is going to carry the growing volume of air freight in the future and how the carriers are to be regulated (BW—Sep. 21 '46, p.50).

To understand the moves in the coming showdown battle, it is necessary to know what the presently nonscheduled airlines, the regular airlines, and the CAB are seeking to achieve.

- **What Contract Lines Want**—Thirteen nonscheduled lines have applied for certification as common carriers. (They are operating now under exemption from certification.) The operators want:

- (1) To be allowed to advertise definite schedules and rates. They are prohibited from doing so now, and must enter into a contract with each customer.

This means a lot of red tape, makes it difficult for the line to do the sort of advertising which will attract cargoes both ways on a plane's trip, and leads to uneconomical price cutting, particularly on return trips.

- (2) Regulations which will keep out the fly-by-night operators but which still will be somewhat different from those under which regular airlines operate. The presently nonscheduled lines realize that certification will bring such rules as requirements that they file tariffs, but they believe, for instance, that there could be separate safety regulations more adapted to freight carriers than passenger carriers.

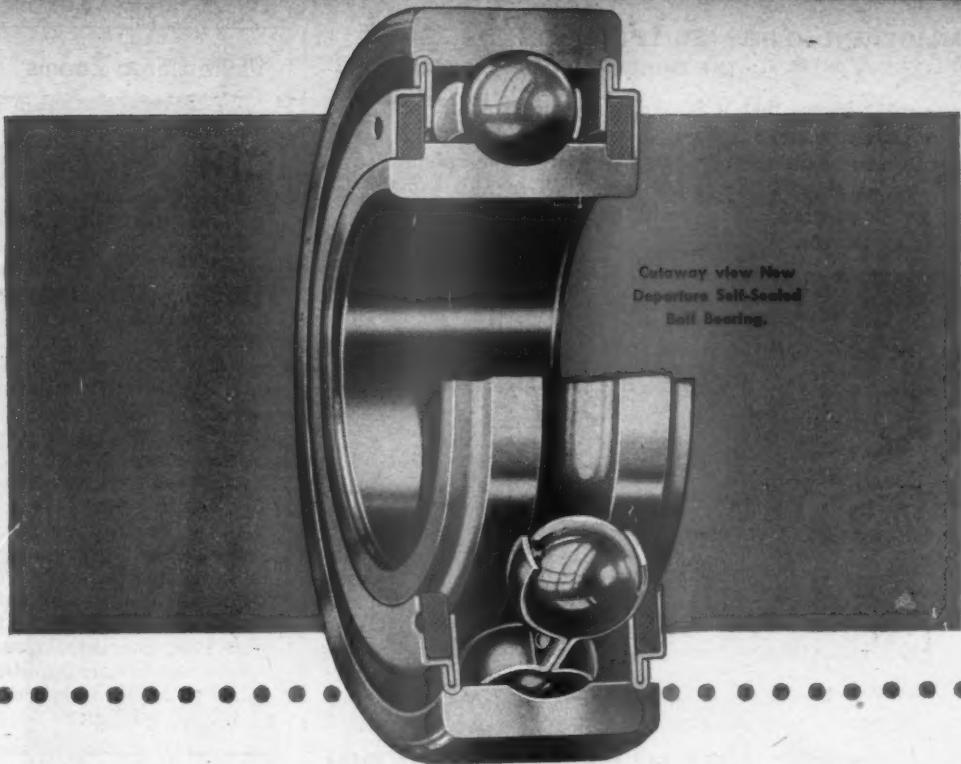
- **What Regular Airlines Want**—The established passenger airlines, several of which have established all-cargo schedules, are seeking:

- (1) To keep the newcomers from establishing and advertising scheduled



PROGRESS IN REVERSE—FOR SAFETY

Their backs toward their destination, a group of servicemen act as guinea pigs for Air Transport Command's studies in passenger reaction to a new device to beat deceleration shock (BW—Jun. 29 '46, p.28). Research reportedly has demonstrated that for crash or emergency landings, a passenger is safer if the seat absorbs part of the impact. Hence, seats were reversed in a giant ATC Skymaster on a test flight from Washington to California recently to find out how well the passengers can take a long, fast ride—backwards.



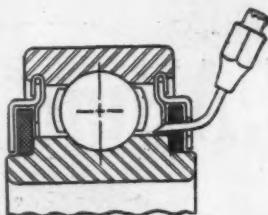
Still lubricated for life

... now has a new plus feature

In the majority of applications you can install it—and forget it—because this bearing is, for all normal conditions, *lubricated for life*, with dirt sealed *out* and the lubricant sealed *in*.

But now—for the *unusual* applications—where excessive heat or other abnormal circumstances were formerly too tough for a single supply of lubricant, these bearings can be relubricated quickly and easily. There is no removal of seals—no nipples, grease passages or plugs required.

Thus, this one type of New Departure Self-Sealed Ball Bearing gives you dependable performance for *both* ordinary and *unusual* conditions, extending its use to *many additional applications*. New Departure originated the self-sealed bearing. Over 110 million are in successful operation. For further details, ask for booklet IB.



In most applications you never need relubricate a New Departure Self-Sealed Ball Bearing—because it is lubricated-for-life.

When operating under the abnormal conditions described at left, you may, at infrequent intervals, relubricate as follows:

Simply insert the "hypodermic" nozzle of the lubricating gun through small hole in seal member. Nozzle penetrates the flexible inner seal, cleaning itself as it enters. Lubricant is injected and hole in seal closes completely as nozzle is withdrawn. No dirt can get in.



Nation-wide replacement and small order service, wherever you see this sign.

nothing rolls like a ball
NEW DEPARTURE
 BALL BEARINGS

3450-C

NEW DEPARTURE • Division of GENERAL MOTORS • BRISTOL, CONN. • Branches in DETROIT, CHICAGO, LOS ANGELES and Other Principal Cities

IT IS GOOD MANAGEMENT TO HELP PEOPLE PROTECT
THE THINGS THEY CARE ABOUT

Good management knows that it is "good management" to be interested in people, their problems, their worries; and good management in many hundreds of large and small organizations has done something about it through Connecticut General's Protected Pay Envelope plan of comprehensive Group insurance protection for employees.

MANAGEMENT REACHES OUT THROUGH THE "PROTECTED PAY ENVELOPE"

LIFE ACCIDENT AND HEALTH - GROUP INSURANCE ANNUITIES

CONNECTICUT GENERAL
LIFE INSURANCE COMPANY
Hartford, Connecticut

SUPERIOR

is the word for

R.C. Allen



... The famous R. C. Allen
10 KEY CALCULATOR

Manufacturers of

10 KEY Calculators, Portable
and Standard Adding Machines,
Bookkeeping Machines,
Cash Registers and Calculators

R.C. Allen Business Machines, Inc.

GRAND RAPIDS 4, MICHIGAN

Plane Cargo Zoons

In scarcely more than a year air freight has wooshed into figures demonstrating pretty conclusively that it will become an enduring feature of air-transport.

• Until recently the established airlines have looked down their noses at exclusive cargo operations, and as a result their freight traffic has lagged far behind that of the nonscheduled operators.

Only fragmentary figures are available on freight traffic of non-scheduled operators. The Independent Air Freight Assn. reported 2,331,000 ton-miles in August, as compared to 1,646,000 in July, for five nonscheduled operators.

• Since August, 1945, the ton-miles of freight carried by the scheduled airlines climbed from 211,000 to 1,299,000 in July of this year, the latest month for which statistics are available. The August total is estimated at 1,670,000 ton miles.

runs, thus giving the established airlines an advantage in developing freight business in the future, or

(2) Failing that, to make the newcomers subject to the same rules as regular lines.

• What CAB Wants—In refereeing the dispute, the CAB must answer these questions:

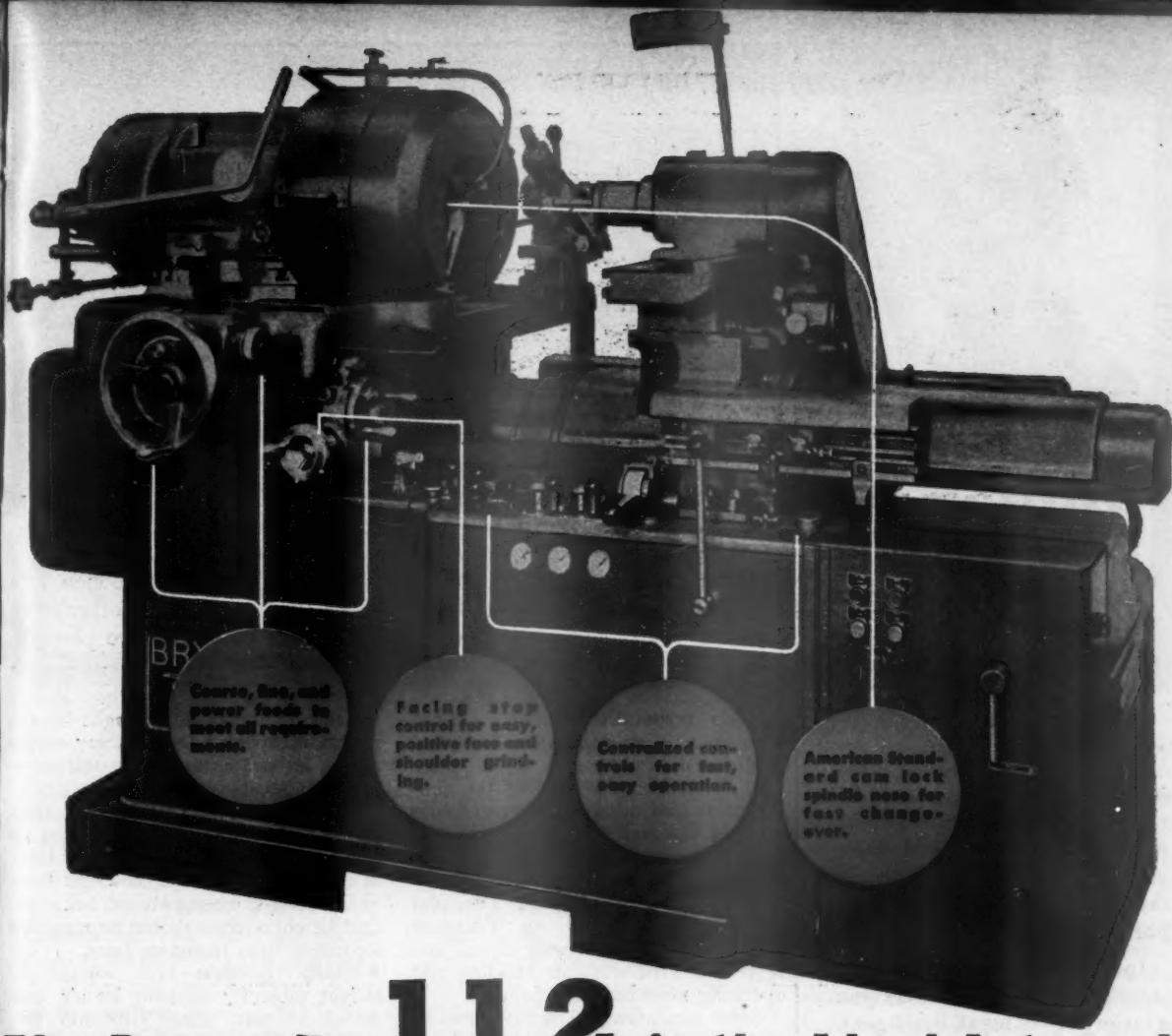
(1) Over the long term, who should carry air freight—a new group of lines devoted exclusively to cargo, or the regular airlines, or both?

(2) If the new all-cargo group is to be given permanent status, should its financial and plane-operating rules be the same as for the lines carrying both freight and passengers?

• The Applicants—Among the applicants for certification are five members of the Independent Air Freight Assn.—Slick Airways, Flying Tiger Line, U. S. Airlines, Willis Air Service, and Flamingo Air Service—which carry freight by contract. This group was formed to present a united front before CAB and to work with it in solving problems in the air-freight industry.

The eight nonmember applicants are American Air Express Corp., Lone Star Air Cargo, Standard Air Lines, Inc., Air Transport Corp., Air Travel, Inc., California Eastern Airways, Inc., Airborne Cargo Lines, Inc., and Air News, Inc.

There is one other applicant, the well-established Pennsylvania Central Airlines, which is seeking a freight route in the present case but at the same time is sharing the regular lines' view. It stands to win whichever



**The BRYANT No. 112 is the Ideal Internal
GRINDER
for Small Lot Production**

From stem to stern, the Bryant No. 112 Internal Grinder is designed for small lot production. It is truly the ideal tool room machine, because every lever, every control, every part was planned to speed the production of short runs or single parts.

There are three feed controls—one for coarse feed for setup, another for power feed for production, and a third for fine feed for precision.

An American Standard cam lock spindle nose allows fastest change of chucks and holding fixtures. All controls are centrally located so that all of the operator's motions are easy and natural—more work produced with less fatigue.

A universal facing stop (standard equipment) makes face and shoulder grinding an easy, positive operation. These are only highlights—for complete details on this "ideal" tool room internal grinder, just . . . Send for the Man from Bryant.

Write for new catalog on the No. 112

BRYANT



BRYANT CHUCKING GRINDER CO.

SPRINGFIELD, VERMONT, U. S. A.

year
tures
evely
ring

shed
their
ons,
affic
the

are
non-
de-
re-
Au-
0 in
per-

on-
the
om-
of
for
he
at

l air-
freight

new-
es as

g the
these

should
lines
reg-

is to
d its
s be
both

appli-
bers
sn.—

J. S.
Fla-
ight
ed to
and
s in

are
Star

Air
Calif-
orne

Inc.
the

tral
ight
the

nes'
ever

946



Indiana Labor is American!

TIRED of *imported* ideas of how your business should be run? Tired of agitation by impractical theorists? Then move your business to Indiana, where the population is 97% native born!

Indiana labor is first of all American. This State offers you a large pool of loyal, intelligent, capable help. It was the first State in the Union to adopt a labor-management charter, under which the round-table method has made an enviable record in solving problems. Strikes in Indiana are inter-state, not manufactured at home.

In the heart of America, with America at heart!

INDIANA

Your LOGICAL Industrial Location



INDIANA DEPT. OF COMMERCE AND
PUBLIC RELATIONS.....DEPT. B-18
STATE HOUSE • INDIANAPOLIS, INDIANA

★ Send for this
FREE BOOKLET
Get the Facts



SERVICE OFF THE BEATEN TRACK

In mountain-ringed Monte Vista, Colo., a crowd flocks to inspect a DC-3 as the feeder Monarch Air Lines this week readied for daily cross-Rockies flights after a year of preparation. Planes, flying 13,000 ft. high, will carry 16 to 18 passengers, mail, and cargo; stewards, doubling as cargo handlers, are men. The present schedule calls for flights from Durango, Colo., to Denver; other cross-Colorado routes and an Albuquerque-to-Salt Lake City flight are planned.

way the decision goes. If the newcomers win certification, P.C.A. will be with them in its application for trans-continental freight routes. If the scheduled lines succeed in keeping the newcomers in their present disadvantageous status, P.C.A. will share the victory with its fellow operators.

- **Many Faded Out**—After the war, hundreds of veterans with Air Transport Command and Naval Air Transport Service experience invested capital and aggressive hard work in building and operating nonscheduled airlines.

Some capitalized on the overflow of passengers from the scheduled airlines. Others, such as the Independent Air Freight Assn. members, held mainly to cargo. Many of these young operators collapsed under the fierce competition. • **Success**—A few newcomers drew on the transportation, passenger airline and aircraft manufacturing fields for experienced managerial talent. Among these was Slick Airways, a transcontinental line based in San Antonio.

Founded by 26-year-old Earl Frates Slick (cover), son of the late Tom Slick, fabulously successful Oklahoma oil operator, Slick Airways emerged as a leader among the stable air-freight lines. Starting operations in March with 67,247 revenue ton-miles, Slick climbed to 2,034,035 in October to make a grand total of more than 8,000,000 to date.

Slick, a former ATC pilot and administrative officer, will be a principal witness at the CAB hearings.

- **Regulars Opposed**—The scheduled passenger lines will argue that, because of their experience in carrying passengers and flying regular routes and schedules, they are better qualified to handle air freight than the newcomers.

They will contend that they already are serving routes now sought by the new nonscheduled lines. Many of the regular airlines already have well established cargo divisions.

The newcomers, seeking no mail-contract subsidies, will declare that air freight will never be a sideline for them as they say it is for the passenger lines. Slick Airways, among others, will argue that freight airlines should be regulated separately from passenger lines.

• **Steady Business**—The volume of freight presently traveling by air, estimated at more than 5,000,000 ton-miles monthly and growing rapidly, is believed by both scheduled and contract airline operators to be proof of the need for the new air-freight industry.

Slick Airways, for example, will offer testimony to the effect that 40% of its volume is general merchandise formerly carried by rail express, nearly 30% of it perishables including cut flowers, and the rest machinery, furniture, serums, emergency shipments.

- **What It Flies**—A breakdown of commodities flown during October by the ten Curtiss Commandos (C-46s) of Slick Airways, operating at 74% load factor with a plane utilization of 8.9 hr. out of 24 (comparable to the best airlines practice), follows:

lines practice), follows.

Department store merchandise, 41%; perishables, including cut flowers, fruits, and vegetables, 29%; machinery and spare parts, about 9%; household goods, approximately 5%; and miscellaneous, 16%, including processed pelts flown from Texas to New York furriers.

- **Origin and Destination**—Records show that 43% of the freight volume originated in the New York-Boston-Philadelphia area, 27% in the Los

C-3 as
lights
to 18
. The
cross-
nned.

ready
y the
f the es-
tab-
mail-
at air
them
lines.
argue
lated

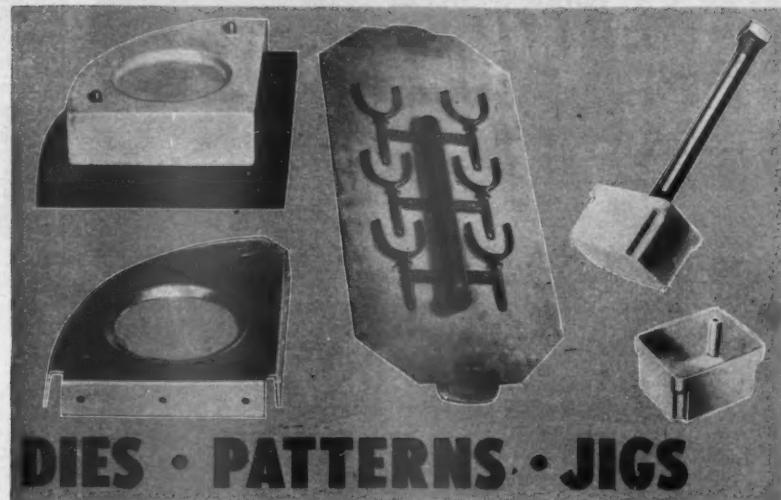
of
est-
ton-
ly, is
con-
f the
stry.
offer
of
for-
early
cut
urni-
com-
the
of
load
9 hr.
air-

1%;
uits,
and
ods,
ous,
own

ords
ame
ton-
Los

1946

CAST PLASTIC DIES • PATTERNS • JIGS



Typical of the current trend toward making production methods ultra-efficient is the use of Durez casting resin . . . to reduce the time and cost involved in conventional die-, pattern-, and jig-making . . . to speed production.

Cast Plastic Dies

Durez casting resin lends itself readily to cast forms for hydropress operation. The cast plastic die illustrated above left is used regularly under 75 tons press load and has produced hundreds of pieces, similar to the one shown below it, without flaw. Tests have shown it to be capable of withstanding up to 270 tons press load, equivalent to about 12,000 psi.

Cast Plastic Patterns

Alert foundrymen everywhere have been quick to see the production advantages of cast Durez resin patterns such as the match plate illustrated above center. The inexpensive Durez casting resin is simply poured and cured. The perfectly reproduced pattern is then mounted on the plate. The time-

and cost-saving benefits are obvious.

Cast Plastic Jigs

The fixture, illustrated above right, for holding die-cast metal covers while a few finishing operations are performed is an excellent example of the simplicity of producing such fixtures with Durez casting resin. It was only necessary to coat the inside of one of the covers with a parting agent and pour in the resin. While the resin was in a semi-viscous state, the stud was located in place. After allowing the assembly to set for a few hours, it was placed in an oven and cured. When taken from the oven, the die-cast cover was removed and the fixture ready for use, the stud being anchored securely in the resin. Long-wearing qualities of the casting resin are excellent.

Characteristics of Casting Resin

Tests have shown that Durez casting resin may be sawed easily, that it drills like hard maple wood, that it will not hold heat or be softened by it, and that it will not ignite. Standard wood- or

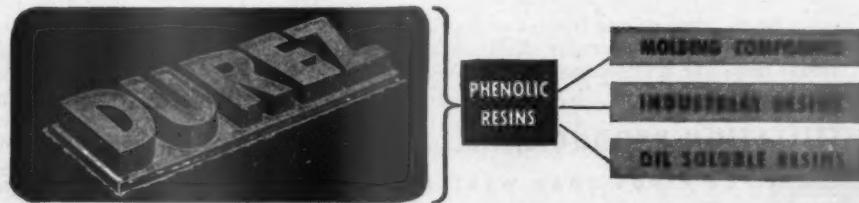
metal-working equipment may be used. The liquid resin follows the contours of any part exactly and holds them to predetermined tolerances. Its shrinkage factor is but .0025 inches per inch.

Other Uses

A few additional uses for Durez casting resin are stretch-press dies, masking shields for plating, models for testing and duplicating, and checking and assembly fixtures.

Informative Booklet

As specialists in the production of phenolic plastics and resins for almost three decades, Durez technicians have gained an enviable record for developing plastics and resins that fit the job. This background includes molding compounds, industrial and protective coating resins. The benefits which this rich experience can provide are available to you. Write for complete, authoritative folder on casting resin. Durez Plastics & Chemicals, Inc., 211 Walck Road, North Tonawanda, N. Y.



PLASTICS THAT FIT THE JOB

What is it?



good news for researchers!

This novel creation in glassware is a **DPI high-vacuum molecular still**—now at long last available to commercial firms for use in their own laboratories.

Is your firm looking for new products, processing shortcuts, new by-product revenues? It may pay you to look into this "instrument of discovery," the Falling Film Molecular Still.

Its uses in industry have barely begun. The molecular still's virtue is that, under high vacuum, it takes apart oils, fats and even waxes considered "undistillable" before; and it does this molecule by molecule, at low temperatures, in record time, and without injury to the parent substance or its distilled fractions.

Thus through molecular distillation, by-product materials once wasted can now be made to yield fractions of frequently great value.

The Falling Film Molecular Still is but one of nearly a hundred unique tools of research and industry made by DPI. Our production includes high-vacuum pumps ranging from single-stage glass lab models to huge nine-foot-high metal diffusion pumps capable of reducing the pressure in a 1000 cubic foot chamber from a tenth of a millimeter to a hundredth of a micron in less than a minute.

So to firms whose futures will prosper through use of high vacuums or molecular distillation, DPI offers exceptional help. We invite your inquiry.

DISTILLATION PRODUCTS, INC. Pioneering High-Vacuum Research

755 RIDGE ROAD WEST, ROCHESTER 13, NEW YORK

Headquarters for Oil-Soluble-Vitamins and High Vacuum Equipment

Angeles-San Francisco area, 26% in the Chicago-Detroit-St. Louis area, and 4% in the Texas area.

Distribution of the tonnage shipped was 40% to the California area, 28% to the eastern area, 21% to the mid-western section, and 11% to the area comprising a large portion of Texas, including Dallas, Fort Worth, Houston, San Antonio, and the Rio Grande Valley's vegetable-growing region.

Slick's petition to the CAB requests routes serving these areas as distinguished from the point-to-point service of passenger airlines.

JET TRANSPORT: NOT YET

In recent months there has been much discussion on both sides of the Atlantic about 500-600-m.p.h. jet-propelled transport planes. Jet enthusiasts tend to give the impression that they are just around the corner. Engineers, on the other hand, set their advent three to five years in the future. The big problem right now is that jet engines demand fundamental changes in aircraft design; when speeds approach 600 m.p.h., the problems of transonic flight begin to plague the designer.

American Airlines is the first U. S. carrier to make public specific plans for jet development. Its president, C. R. Smith, has announced that British engines will be imported for experimental installation and comparison with American-made power plants of the turbine type.

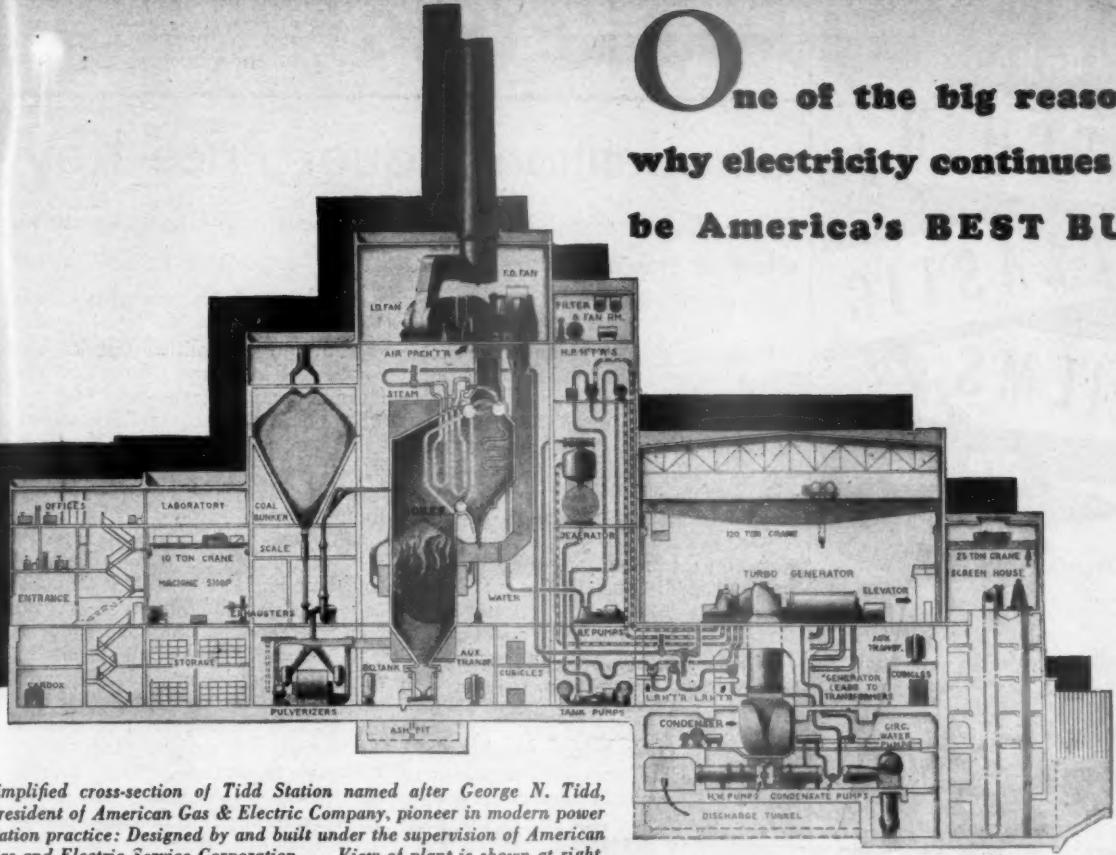
Actually, there will probably be at least one more round of plane procurement by the airlines involving aircraft with speeds of around 400 m.p.h., before use of jet planes becomes general.

CANADA BUILDS U. S. FIELDS

The United States' wartime practice of building airports abroad is being reversed. The Canadian government is financing construction of a string of landing fields across the upper peninsula of Michigan. The fields will be used as emergency landing ports for winter flights by Trans-Canada Airlines, which prefers the route south of Lake Superior to longer runs over the bleak, largely uninhabited areas to the north for its Toronto-Winnipeg flights.

The Michigan facilities being paid for by Canada include a new \$250,000 port at Grand Marais, a new \$500,000 field between Houghton and Calumet and a radio beacon near it, and enlargement of Kinross Field at Sault Ste. Marie. The Dominion will also pay for maintenance of these facilities. Calumet welcomed the Canadian installation by floating a \$30,000 bond issue to provide land for a mile-long runway, then giving the land to the Canadians.

One of the big reasons
why electricity continues to
be America's **BEST BUY**



Simplified cross-section of Tidd Station named after George N. Tidd, President of American Gas & Electric Company, pioneer in modern power station practice: Designed by and built under the supervision of American Gas and Electric Service Corporation . . . View of plant is shown at right.



The next time you snap a switch and the room is flooded with light, it should give you some extra satisfaction to dwell on the fact that electricity is one essential of your daily life that has not gone up in cost. On the contrary, the average residential user of electricity in the U. S. paid less per kilowatt hour in 1945 than in any preceding year.

One of the big reasons why American power companies have been able to accomplish this remarkable result, despite ever higher taxes and operating costs, is the efficiency of the modern power station. An outstanding example is the station illustrated on this page — the new Tidd Station of The Ohio Power Company at Brilliant, Ohio. This station is part of the great regional power pool forming the Central System of the American Gas and Electric Company, which serves homes and diversified industries in seven states.

Were you to visit this station, probably your first impression would be one of amazement that a building in which 45 tons of pulverized coal are burned every hour could be so clean and comfortable. But Tidd is air-conditioned — the first air-conditioned power station in America — and its coal bunkers, the principal source of dirt and dust, are housed in a completely sealed-off section of the plant.

You would be impressed, too, we think, by the control room where the supervisors surrounded by panel boards and a vast array of instruments have what amounts to an X-ray view of the operation of every piece of equipment in the plant — from the huge boilers and turbine, down to the

smallest motor. Centralized control makes safe and easy the difficult task of meeting changes in load, or emergencies.

Tidd's two boiler units, designed and built by Combustion Engineering, are each capable of producing 475,000 pounds of steam per hour at a pressure of 1375 pounds per square inch and a temperature of 925 deg. Fahr. The turbine-generator they serve can produce kilowatts at the rate of 100,000 per hour, enough electricity to supply more than 700,000 average homes. And this is only the first section of Tidd. When completed, it will have several other such turbine-generators.

C-E steam generating units such as those at Tidd are installed in many of the country's most modern power stations, helping to produce electricity at a cost that will continue to make it America's *best buy*.

A-994

COMBUSTION ENGINEERING
200 MADISON AVENUE • NEW YORK 16, N.Y.

Perhaps

ARCHER
PLASTIC
FILMS
are the
answer...



Archer . . . with its Plastic Films . . . has answered many difficult coating problems, particularly in the vast fields of textiles, shoe manufacturing, and paper. And every day, manufacturers are discovering new uses for these strong, lightweight films.

Tough and waterproof, Archer Plastic Films are resistant to creasing and mildew, to acids, oils, heat, cold and many other potentially destructive agents. These unusual qualities make Archer Plastic Films adaptable to innumerable industrial applications.

If you have a particular coating problem, call on Archer. Write directly to Archer Rubber Company, Milford, Mass., and we shall be pleased to consult with you.



A PRODUCT OF
ARCHER RUBBER COMPANY
MILFORD, MASS.

Makers of Quality Rubberized Goods Since 1907

MARKETING

Competition: Liquor Price Key

Distillers' cautious approach to post-OPA pricing shows effect of free-market restraints. Blends expected to sell at or near old levels, although shortages drive up aged straights.

Changing postwar competitive patterns are a headache to most industries. But in few has the new influence made itself felt so rapidly and emphatically as in the distilled spirits industry.

Last week distillers—in common with most sellers—were looking forward to a mammoth holiday season (BW—Nov. 9'46, p15). But instead of jacking up prices on the strength of enormous demand, the distillers warily eyed each other—notably two recent candidates for the bigtime: Publicker and United Distillers—then decided to play close to the table.

• **Consumers' Outlook**—As a result, consumers are likely to pay:

(1) Old OPA prices for blended whiskies. Here competition between distillers is roughest; supplies are longest. Prospects are that in the not too distant future prices may even decline.

(2) Higher prices for bonded and aged straight whiskies. Competition in this sector is much less severe, and supplies are short.

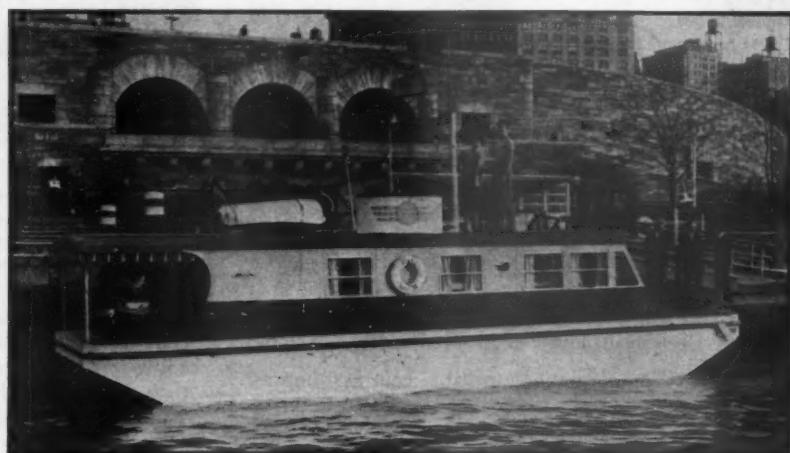
• **New York Sample**—Both trends were spotlighted when New York's State Liq-

uor Authority permitted distillers and wholesalers to revamp November price schedules which, under New York law, are fixed in advance for each month. The state agency had figured that, with decontrol, prices might be upped as much as 50%. The expectation failed to prove out.

Only one of the Big Six distillers filed what looked like major price hikes, and these jumps, roughly 25%, applied only to National Distillers' four name brands of bonded bourbons and ryes. The prices of its blends went unchanged. The rise in its bonded products attested industry opinion that OPA ceilings had pressed down too heavily on bonded and straight goods.

• **Notable Restraint**—Neither Seagram nor Schenley increased its prices. Schenley, however, withdrew its bonded spirits from sale. Seagram, which deals exclusively in blended whisky, except for imports, not only stuck to OPA quotations, but also is currently spending up to \$500,000 to speak against inflated whisky prices.

The increases that Hiram Walker



FLOATING HAVEN FOR THE HOMELESS

For discouraged househunters, Hearn's department store, New York, is offering a self-propelled houseboat (above) that can see a family through the housing shortage now, serve as pleasure craft later. The steel hull measures 36 ft. by 12 ft.; the insulated interior has a galley, lavatory, stateroom to bunk three, dining room-lounge that can double as a bedroom. Made by Steel Marine Co., Keyport, N. J., the vessel has a speed of 8 m.p.h., sells for less than \$10,000.

A Look Toward Tomorrow

IRRIGATION, power, flood control, municipal water supplies and recreational facilities—all will be included in the Missouri-Souris project, in Eastern Montana and Northwestern North Dakota. Preliminary work has already begun on this vast enterprise.

Key to new farms, new industries, new business—the irrigating of 1,400,000 acres of fertile land and furnishing of plenty of low-cost electric power—that's the Missouri-Souris!

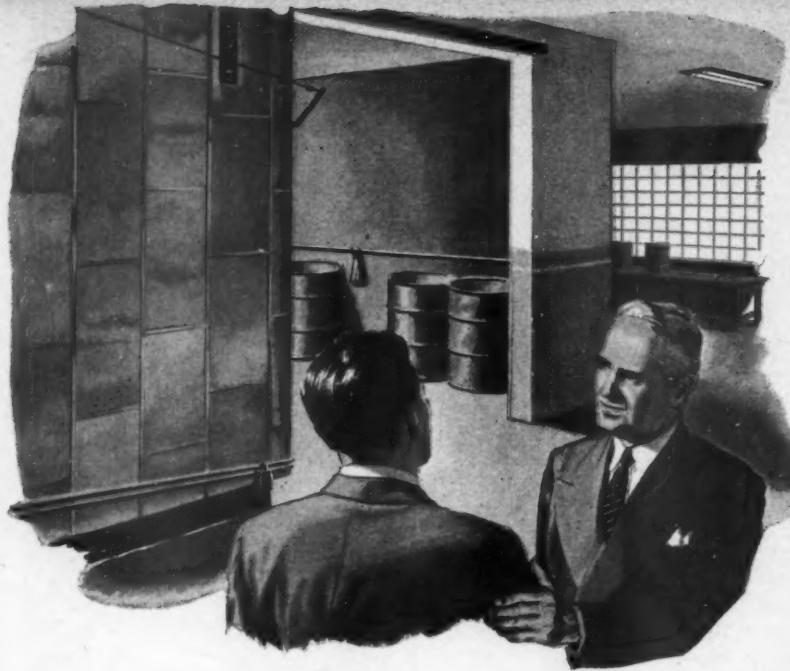


Add to these things the dependable transportation provided by the Great Northern—a pioneer railway in this area, and always an active champion of beneficial utilization of water and land resources—and you have an ideal combination.

If you are planning to relocate or to expand within the next few years, investigate your opportunities in this area. Begin now by writing for full information to:

E. B. DUNCAN, Director
Department of Agricultural and Mineral Development
Dept. M-1, Great Northern Railway Company
St. Paul 1, Minnesota





"If the fire door closes automatically, won't people be trapped inside?"

If fire breaks out in a room housing flammable liquids or electrical equipment . . .

and the safety of nearby workers, or the protection of adjacent equipment, calls for the closing off of the room while the blaze is being extinguished . . .

a *Kidde* Designed System will automatically slam the door on the fire—but not on people working in the room!

As soon as the *Kidde* Heat Detectors spot the presence of fire, an alarm bell warns occupants to leave the threatened area, while the *Kidde* Time Delay holds back the gas, temporarily.

Then, after an adequate time interval, *Kidde* Pressure Trips—actuated by the same carbon dioxide that puts out the fire—operate to allow doors and windows to close. At the same time the carbon dioxide permeates every corner of the room . . . extinguishes the flames within a few seconds.

If there's a place in *your* plant that calls for this kind of protection, talk it over with a *Kidde* representative.

Walter Kidde & Company, Inc., 1125 Main Street, Belleville 9, N. J.

The word "Kidde" and the Kidde seal are trade-marks of Walter Kidde & Company, Inc.



Kidde
FIRE PROTECTION.
HEADQUARTERS

filed appeared mainly to offset last April's rise in U. S. liquor taxes which OPA had required distillers to absorb. The increases, ranging from 16¢ to about 40¢ a fifth, depending on brand, will come to more than that to consumers when wholesale and retail markups of 15% and 40% have also been added.

United Distillers and Pabst Brewing, newcomers in the Bix Six (BW—Sep. 28 '46, p17), filed small increases for the blends in which they deal. Kinsey Distillery Sales Co., Pabst marketing unit, for instance, upped its name brand only 10¢ a case for a rise that will amount to less than 1¢ a fifth.

• **National Picture**—Thus the Big Six cut the pattern of U. S. liquor merchandising. (The undercurrent of "wait and see what happens after the Christmas holidays," which prevails in part of the industry, was typified by Schenley's pulling back its bonded whiskies.) What took place in New York, where



BANANA PARADOX

Elsa Miranda (Chiquita Banana), who's eternally reminding radio listeners they should "never put bananas in the refrigerator," launches United Fruit's 4,600-ton cargo-liner, Sixaola—which is equipped with refrigeration for bananas. Built at Bethlehem-Sparrows Point yard, Baltimore, the vessel is among the 18 that United Fruit ordered to replace those vessels that were lost in the war.

last
which
sorb.
to
brand,
con-
mark-
been

In
Six
in-
they
Pub-
nace,
case
than

Six
han-
wait
rist-
part
hen-
ties.)
here



Modern Geography Quiz for Businessmen

Q. With whom does New Orleans trade?

A. Within 100 miles of New Orleans—1,300,000 people with \$1,250,000,000 annual income. To the south—Latin America, whose businessmen share our Latin tradition and like to trade with New Orleans. They appreciate the facilities of our International House and International Trade Mart—unique in the nation. With miles of steel and concrete wharves, complete banking and export facilities, the nation's second port enables you to tap expanding world markets.

Greater New Orleans

Gives Your Plant the 3 Essentials for Profit—

MARKETS
TRANSPORT
RESOURCES

Q. Locate New Orleans

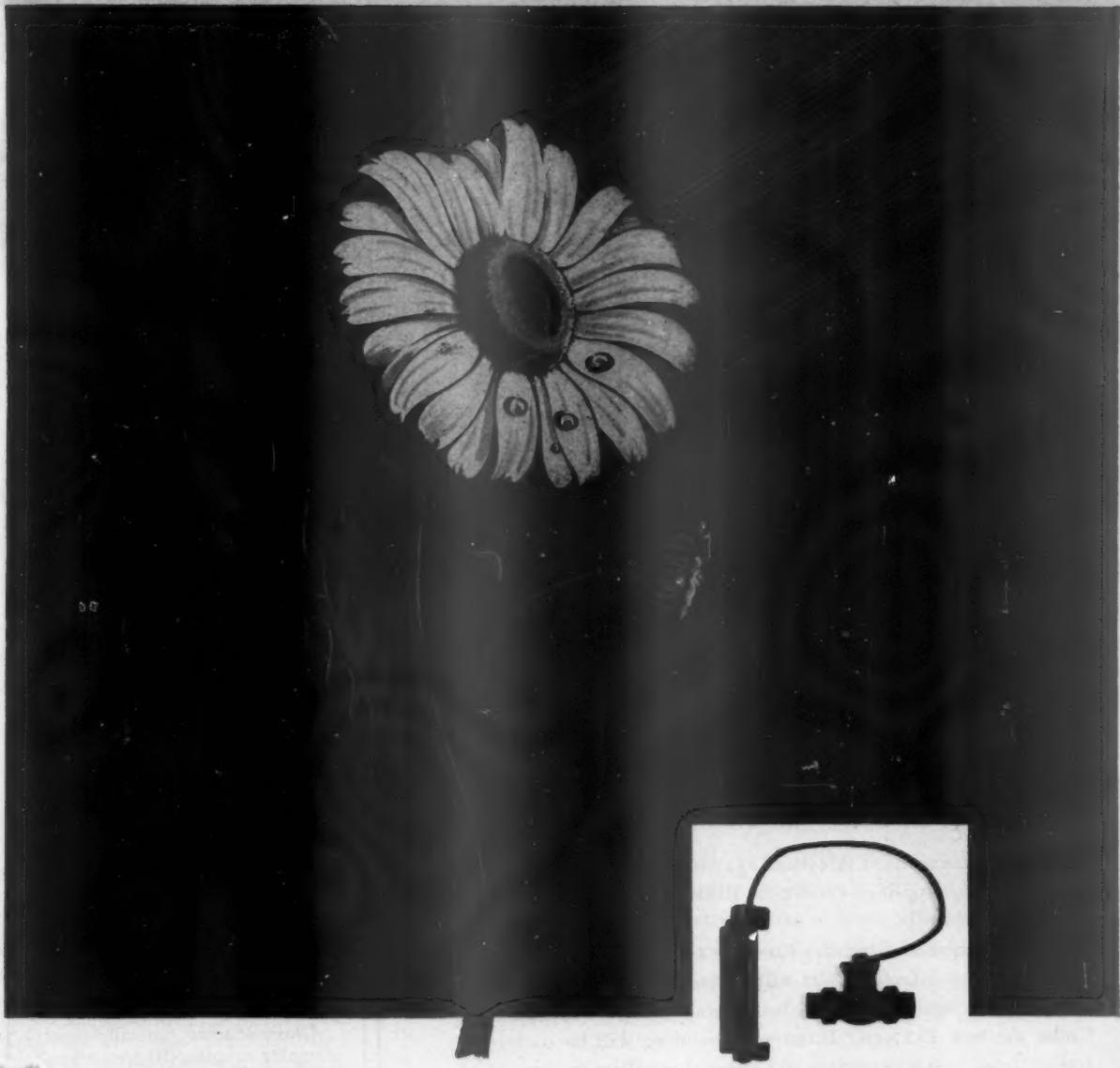
A. New Orleans is at the confluence of 7 major air lines, (in addition to air-freight lines), 11 Class 1 railroads, motor freight lines, barge lines to all the Mississippi Valley, and steamship lines to all the world. Accordingly, your plant in New Orleans has every method of transportation needed for speed, economy, and competitive advantages.

Q. Bound New Orleans

A. The city is bounded on all sides by abundant industrial raw materials ... petroleum and natural gas, some of the world's largest sulphur and salt deposits, limestone, lignite, and other minerals. Near New Orleans, over a billion board feet of lumber is cut annually. And this area's agricultural products—sugar cane, rice, sweet potatoes, cotton, tung, soy beans—have chemurgic value for newest manufactured products.

Learn More About New Orleans for Your Business

Write today for "Greater New Orleans", informative booklet analyzing today's industrial opportunities. Or write for full, confidential information, specifically applicable to your business and to the location of your plant here. Address New Orleans Association of Commerce, or Greater New Orleans, Inc., New Orleans, La.



AN IDEA OF HOW FRESH YOUR EMPLOYEES WILL FEEL...throughout the winter

... when your offices and plants are comfort-conditioned with Fulton Sylphon Temperature Regulators. One example of these rugged, dependable, precision built products is the No. 7 unit heater control shown above. Highly sensitive, yet practically indestructible, it is self-powered, self-contained and fully modulating in its action. Once the thermostat is set, operation is entirely mechanical. Working areas are kept pleasant and healthy. Efficiency and production go up—fuel costs, down. For all the interesting details, see your heating contractor, or write us for Catalog WW-200.



THE FULTON SYLPHON CO. KNOXVILLE 4, TENN.

FULTON SYLPHON
Temperature Controls Bellows Bellows Assemblies

Canadian Representatives, Darling Brothers, Montreal

An Important Safeguard IN YOUR BUILDING PLANS



PLANNING a factory, office building, warehouse, hotel, theatre, hospital, clubhouse, a large residence, or some other project? If you are, then you are doubtless aware of the difficulties caused by scarcities, priorities and strikes.

But are you mindful of the other risks of non-completion or loss, such as a contractor's possible default, or failure to pay for labor and materials?

There's an inexpensive safeguard against these threats of loss and that's our new, simplified **CONTRACT PERFORMANCE** and **PAYMENT BONDS**.

Under the new and broader **CONTRACT PERFORMANCE BOND**, if your contractor defaults others will be brought in to complete the job and, if necessary, funds will be made available for this purpose. Under the new **PAYMENT BOND** your building will be completed free of liens . . . subcontractors and material suppliers are assured of payment.

Both of these modern instruments of protection, designed especially for private owners, are available through any agent of our companies or your insurance broker, and at surprisingly low cost. The time to arrange for them is before the contract is awarded.

More than 60 years' experience in writing Contract Bonds. We are headquarters also for Public Liability, Workmen's Compensation and Contractors' Equipment Floater policies.

**AMERICAN SURETY COMPANY
NEW YORK CASUALTY COMPANY**

Affiliate:

SURETY FIRE INSURANCE COMPANY

100 Broadway

New York 5, N. Y.

Dependable as America



as the industry husbanded its tight aged supply.

• **The Production Restrictions**—Distillers currently are mashing about 3,000,000 bu. of grain a month under strict government controls. The industry is hopeful that the U.S. Dept. of Agriculture will lift these, but the department may hold down liquor production for a few months more.

In any event, unrestricted production is not likely until next year, when a substantial corn carryover could lead the government to let production rise to its full capacity.

Ready for Winter?

This winter will be the best for consumers since 1942 as far as the supply of cold weather merchandise goes. Although some items—such as high grade antifreeze—still are painfully short, most buyers who need a snow shovel or a pair of ear muffs will be able to get what they want without scouring the town.

Here is the supply situation in a few of the principal winter items as shown by a **Business Week** spot check:

Tire chains—Generally available but moving fast.

Antifreeze—Better grades are short all over the country. Alcohol mixtures are generally available.

Christmas toys—Cities generally report the best supply since the start of the war, but wheeled toys and metal items may fall short of demand. Prices are higher.

Snow suits—Stores expect supplies to be adequate.

Gloves—Stores generally report adequate supplies (Richmond and Cleveland excepted). In New England, leather gloves are available, but fabric styles are still short.

Mufflers—Plenty of these everywhere.

Galoshes—Still a little short, but most stores think they have enough barring unusually messy weather.

Snow shovels—No shortage except in Richmond and Cleveland.

Storm windows—Supply depends on conditions at local mills. Richmond, Minneapolis, and Philadelphia report shortages. Elsewhere, standard sizes are generally available but special sizes are hard to get.

Christmas cards—Plenty everywhere except in Philadelphia and Houston.

Vending Picks Up

Coin-operated machines enter new fields as industry intensifies its merchandising. Sales reached \$500,000,000.

Vend, a new magazine for the coin-operated vending machine trade, was introduced this month by the Billboard Publishing Co. The timing is strategic, since the industry expects to get back into high gear in 1947 with new and novel machines like the Insurograph for dispensing travel insurance policies (BW—Oct. 19 '46, p47), improved basic machines such as refrigerated dairy product vendors, and old standbys like ball gum machines.

• **Half-Billion Sales**—Most of Vend's circulation will be among the operators of vending machines (as distinguished from other coin-operated devices like slot machines and juke boxes), whose sales last year totaled \$500,000,000, compared with \$300,000,000 in 1941.

The increase is due to sales in military establishments, since sales to civilians declined during the war because of shortages of the principal merchandise: candy, gum, soft drinks, and cigarettes.

This year's sales are expected to be slightly under last year's because of persistent shortages and the decline in military customers, but the industry's hopes for the future are rosy. The most frequent prediction at last month's Chicago convention of the National Automatic Merchandising Assn. was \$1,500,000,000 annually within ten years.

• **Intensive Marketing**—Expansions in both the machine operating division and machine manufacturing division are expected to make this increase possible. Many operators are acquiring larger strings of vending machines, and not infrequently they are veterans who entered coin machine merchandising as a result of their experience with these devices in the armed forces. Many jobbers are also becoming operators, since machines give them good sales outlets with no credit worries.

In all fields, operators are working existing territories more intensively, both by putting machines into smaller towns as well as in metropolitan areas, and by installing three or four machines in a location that formerly had only one. For example, a peanut machine, postage stamp vendor, and cigar vendor might be installed in a tavern that previously had only a cigarette machine.

• **Diversification Noted**—Probably the most significant development in the manufacture of vending machines is the number of manufacturers that are finding it a promising form of diversifica-



HYATT...QUIET

Performing in silence is a trait the pointer learns through arduous training . . . but silent performance is a natural characteristic of Hyatt Roller Bearings.

Freedom from destructive friction, from vibration, from noise—the freedoms that make possible the smooth, uninterrupted performance of today's efficient machines and equipment—result from Hyatt's development of the roller bearing.

The ultimate in scientific engineering and precision manufacture, Hyatt Roller Bearings are yet extremely simple. They require no adjusting, practically no maintenance, and are so durable they usually outlast the machine in which they serve. Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.

HYATT  **QUIET**
ROLLER
BEARINGS

WHAT'S NEW FOR THE BABY

BABIES born in America today, start life with a far surer chance of surviving infancy than ever before—thanks to a new world of science and industry . . .

A world of skilled physicians, advanced obstetrics . . . of incubators, serums and penicillin . . . of well-equipped nurseries, clinics . . .

A world of wholesome food—strained and processed, high in vitamins . . . of new warmer, softer baby clothing . . .

A world of homes—with pure water, efficient heating, lighting, sanitation . . .

And aiding in all this progress is Allis-Chalmers—working closely with scientist, processor and manufacturer—supplying new and essential equipment to *all* industry.

★ ★ ★

The familiar A-C trademark is on all kinds of machines, from giant turbines to small motors. And no matter what size or type the equipment, that trademark stands for engineering integrity and precision workmanship that have won the respect and confidence of the keenest technical minds in the world.

One of the "Big 3" in electric power equipment, A-C is biggest of all in range of industrial products—helps every major industry build better and more plentifully the things that mean good living for more people.

ALLIS-CHALMERS MANUFACTURING COMPANY
Milwaukee 1, Wisconsin



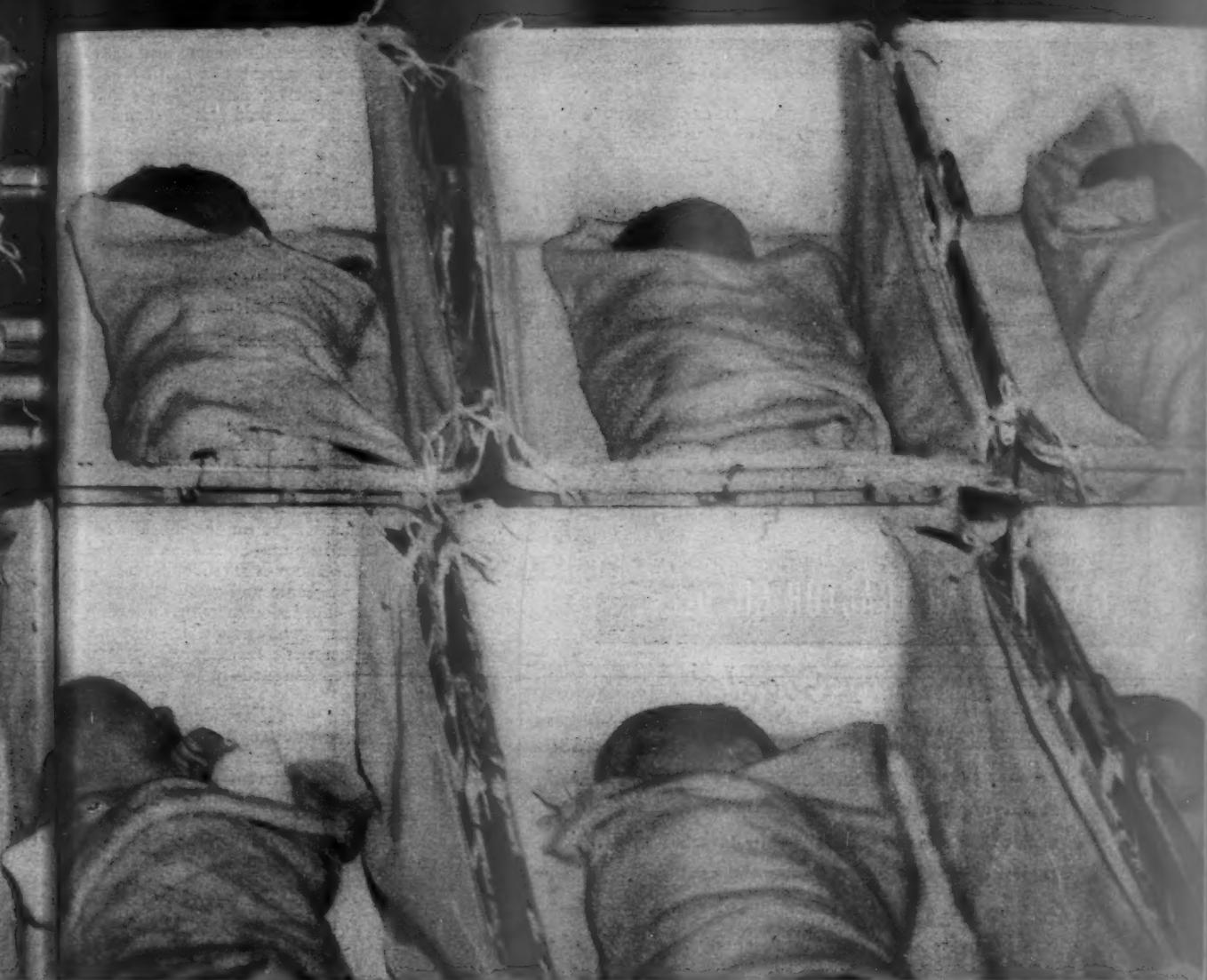
Neat, compact, efficient—A-C substation equipment saves space, time, money. Planned with the assistance of table-top scale models, these installations are excellent examples of how

Allis-Chalmers electric power equipment is designed and built to meet the needs of each job. Turbines, generators, transformers, motors—whatever your equipment problem, call your nearest Allis-Chalmers office.



Designed to save time, money and manpower for better living on the family farm, the A-C All-Crop Harvester today helps speed food for America and millions of needy people throughout the world. Farmers, like key engineers and executives in all basic industries, have learned that Allis-Chalmers equipment pays. Reason: sound engineering, precision workmanship, efficient, long-life operation!

THE 'CARRIAGE TRADE'?



ALLIS CHALMERS



**One of the Big 3 in Electric Power Equipment—
Biggest of All in Range of Industrial Products**

CATERPILLAR TRACTOR CO. says:

*"The Best Treatment for Accidents
is Their Prevention"*



CATERPILLAR TRACTOR CO. uses...

A-O Safety Goggles

Caterpillar Tractor Co. supplies A-O Safety Goggles to employees on eye-hazardous jobs. As illustrated, they service and repair goggles right at the worker's machine, through goggle service carts manned by specially trained experts. As a result of their eye protection program, the cost of eye injuries in this Peoria plant has been materially reduced.

Your nearest A-O Safety Representative will be glad to arrange for an eye hazard survey of your plant, at no charge, and to help you set up a complete eye protection program.



American  Optical

COMPANY

Safety Division

SOUTHBRIDGE, MASSACHUSETTS
BRANCHES IN PRINCIPAL CITIES

tion, such as aircraft companies. Bell Aircraft Co., for example, is making an automatic coin-changer (BW-Jun. 29'46, p26).

Another group is the precision tool industry: Viking Tool Machinery Co. is making a machine that pops, seasons, and delivers popcorn while you wait, and Polson Tool & Die Co. is making a bulk (as opposed to bottle) soft drink vendor.

Still another is the dairy machine industry: Ex-Cell-O Corp., whose normal products are milk cartons and dairy equipment, is currently exhibiting two models of a bottled milk dispenser that can also be adapted for dispensing frozen foods.

Prestige Expansion

Mark Cross, century-old leather merchant, branches out into men's toiletries. Plans to rebuild wholesale business.

The casual shopper who notices the arrival of Mark Cross toiletries for men on the counters of top-priced specialty and department stores this week will probably regard them as another British import. For casual observers everywhere consider Mark Cross a British firm: "It says England right on the label."

• **Built on Imports**—So it does, but the retail trade knows Mark Cross as a century-old wholesale and retail American firm that built its business by importing fine leather goods made in its own English factories from samples approved—often even designed—in its Fifth Avenue shop.

In recent years it has added American products, made to specifications of craftsmanship that equal English standards. Now it is diversifying further with "Cross Country" toiletries—nine products packaged and priced up to Mark Cross luxury standards (for example, soap at \$1 a cake, after-shave lotion at \$3.75 for 8 oz.).

• **Policy Changes**—Broadening the Mark Cross line by the addition of men's toiletries is not the only change in the company's merchandising policy aimed at rebuilding its wholesale business. For one thing, it is planning to establish Mark Cross departments on the main floor of key department stores in big cities where the entire line can be displayed en masse. (These will be simply promotional devices, not leased departments.) Smaller displays, of course, will continue to be handled in appropriate departments.

During the war its dealer accounts dropped from 2,300 to 1,800 because of shortages of both imported and domestic merchandise. Now, new dealers

II cuts soldering cost 58% with TOCCO Induction Heating



THE OHIO CRANKSHAFT COMPANY



INTERNATIONAL HARVESTER COMPANY, world-famous builder of farm implements and automotive equipment, reports the following benefits from TOCCO Induction Soldering of radiator tanks to core:

CUTS COST 9¢ EACH

Former hand method cost 16.3¢ each for medium size radiator. TOCCO soldering costs 6.85¢ each, saving 58% on this operation.

IMPROVES QUALITY

TOCCO's automatically controlled heat melts uniform solder ring at 400° F . . . makes every joint perfect. Eliminates rejects. Improves service in field.

IMPROVES WORKING CONDITIONS

Operator simply loads and unloads fixture. TOCCO eliminates fatigue, heat and fumes.

MAIL COUPON FOR FURTHER INFORMATION

Mail Coupon Today

THE OHIO CRANKSHAFT CO.
Dept. W • Cleveland 1, Ohio

Send free copy of
"Results with TOCCO".

Name.

Company.

Address.

City. Zone. . . . State. . . .

PROTECT Your Machine Tool Investment Get Dependable Performance



THE FAMOUS WAGNER CP MOTOR
Hundreds of thousands of these motors
are today giving reliable, dependable
power on all types of machine tools.

Specify Wagner MOTORS

Machine tools represent one of industry's biggest investments. If the motor on a machine tool fails, production is interrupted. Replacing or repairing the motor costs money. As a result, operating costs go up - production goes down thus affecting your machine tool investment . . . You can protect your investment by installing Wagner CP Motors.

If it's built by Wagner - it's dependable

This reputation also applies to other Wagner products which include transformers, unit substations, industrial brakes, air brakes, hydraulic brakes, CoMaX brake lining, NoRoL, and Tachographs (recording speedometers).

If you need electric motors or other Wagner products consult the nearest of Wagner's 29 branch offices, each manned by trained field engineers, or write to Wagner Electric Corporation, 6460 Plymouth Ave., St. Louis 14, Missouri.

M46-34

Wagner WE Electric
ELECTRICAL AND AUTOMOTIVE PRODUCTS

are being sought, among such retail outlets as haberdashers and jewelers, to handle one or more of its six major classes of merchandise: men's and women's gloves, wallets and billfolds, luggage, women's handbags, fancy leather goods such as desk sets, and now toiletries.

The Mark Cross advertising policy has been adapted to fit these innovations: Instead of the strongly institutional copy it has used up to now, it will promote its six lines separately, though with the Mark Cross trademark conspicuously featured.

• **No Compromise With Quality**—The prestige of that trademark, which is the crux of the company's operation, sells, at top prices, an assortment of merchan-



FOR BYWAYS AND BUSINESS

Salesmen of Ozalid division of General Aniline & Film Corp. will be hitting the road with swank new trailers (above) to bring the company's new "Streamliner" model (below) right to prospective customers for demonstrations. Air-conditioned and sound-proofed, the showroom on wheels is fitted with desk and comfortable leather chairs, contains two of the 745-lb. reproducing machines—one of them a "spare" for immediate delivery. Using azo dyes on a variety of sensitized materials, the process reproduces printing, photos, drawings.



dise ranging from vanity cases to trunks, and otherwise unrelated except, usually, for a common raw material—leather. In its hundred years the firm has never jeopardized the prestige of the label by downgrading the quality, the packaging, or the price of its products.

That explains its acceptance—why, for example, over 35 of the country's leading department and specialty stores have enthusiastically accepted the idea of a Mark Cross department on their main selling floor. The same prestige, of course, also sells the consumer.

• **A Centenarian**—The firm's reputation for quality leather goods goes back to 1845 when Mark W. Cross set up a saddlery shop on Boston's Sudbury Street. A few years later, 21-year-old Patrick Henry Murphy became the firm's salesman and, on his first trip to London, secured the exclusive American representation for the London Harness & Saddle Co. Eventually he acquired the business after the death of Cross. In 1892 he purchased an English factory to provide English-made goods designed to suit American tastes.

It was Murphy's merchandising genius that gave the firm prestige out of all proportion to the volume of business it represents. (Normal prewar business, wholesale and retail combined, averaged only \$2 million to \$3 million annually.) Typical of his shrewdness was his famous \$1.50 glove: an English type which he imported at a cost of never less than \$1.12 (usually much more) and sold at \$1.50 to gain circulation—and thus public acceptance—for the Mark Cross insignia embossed on the large wrist button.

• **Early Diversification**—By 1902, Murphy foresaw that the horseless carriage would cut deeply into his harness business, so he added other fine imported goods, including English china, silver, clocks, watches, stationery, fine prints and lithographs, woolens, and fitted travel goods. As the years went by he claimed many firsts in merchandising, among them the traveling hot water bottle, the thermos bottle, the cigarette case, the traveling alarm clock, and, in 1914, the "wristlet watch."

But in 1935, this diversification was abandoned. The elder Murphy had died and his son, Gerald, now president went back exclusively to leather goods, the line that he and his small staff knew expertly.

• **Tradition**—Today, Gerald Murphy rationalizes his company's present diversification into men's toiletries with the help of a new advertising slogan, "Makers of Good Things for Men for Over 100 Years." But the tradition of fine-quality leather saddlery is still strong in his thinking. "We really have no right to carry even gloves," he explains almost apologetically, "except that they were always used with saddlery."

32 ALUNDUM

Joins the Parade
of Outstanding
NORTON DEVELOPMENTS

This newest development of Norton research is the most important since Norton introduced in 1901 the original electric-furnace-made aluminum oxide abrasive (ALUNDUM®).

What "32" Is

32 Alundum abrasive is an entirely new type of aluminum oxide abrasive—made differently by a Norton-invented and patented process. • Each super-cutting grain is a single crystal—individually produced in the electric furnace—not crushed to size. • Each crystal combines a sharp, nubbly surface for fast cutting with a strong grain structure for long life.

What "32" Does

Hundreds of field tests show that grinding wheels of 32 Alundum abrasive: 1. cut faster; 2. cut cooler; 3. last longer; 4. require fewer dressings.

Ask your Norton abrasive engineer or Norton distributor about 32 Alundum Grinding Wheels—or write direct.

NORTON COMPANY WORCESTER 6, MASS.

Behr-Manning, Troy, New York is
a Norton Division



1877 — F. B. Norton patented a new grinding wheel (emery bonded by the vitrified process).

1893 — Grinding wheels of natural Corundum.

1897 — India oilstone.

1900 — First production precision grinding machine.

1901 — First manufactured aluminum oxide abrasive—ALUNDUM®.

1904 — Water-cooled electric furnace revolutionized production of Alundum abrasives.

1910 — 32 Alundum abrasive—white aluminum oxide of exceedingly high purity.

1911 — High temperature refractory products.

1917 — Efficient non-slip wear-resisting floors.

1921 — Pulpstone for grinding pulp wood for newsprint.

1924 — Porous diffuser plates for sewage disposal plants.

1930 — First diamond grinding wheel (resinoid bonded).

1930 — Controlled structure method of grinding wheel manufacture.

1934 — Norbide abrasives and molded products—Norton boron carbides, hardest known substance except the diamond.

1935 — Electrical perlite—a refractory electrical insulator for heating units.

1936 — First metal bonded diamond wheels.

1938 — Optical resin—a hard, transparent, water-white resin.

1942 — First vitrified bonded diamond wheels.

1945 — Pure oxide refractories—for temperatures above 1800° Centigrade.

1946—32 ALUNDUM

PRODUCTION

Wider Horizon for Stainless

Air Reduction Co.'s flame-cutting process makes stainless steel adaptable to some high-speed production methods. Oxides, which hamper cutting by usual method, disposed of by a flux.

Although stainless steel is rapidly expanding into new uses, particularly where corrosion resistance and attractive appearance are desirable (BW-Oct. 5 '46, p17), it has always suffered in competition with other types of steel which are easily cut and fabricated. Up to now, stainless has not been adaptable to the high-speed production methods of flame-cutting to special shapes, and costly, slow fabrication techniques have been required.

Now more extensive applications of stainless steel are forecast as a result of Air Reduction Co.'s claim that it has perfected a method of flame-cutting stainless to close tolerances, at high speeds, and with inexpensive equipment. The method, being offered to industry after a year of test, is said not to affect the physical properties of the metal.

• **Unwanted Oxidation**—The principal reason why flame-cutting has, up to now, been unsuccessful with stainless steels is due to the very elements—chromium, for example—which impart desirable properties to the metal. These elements, in the presence of heat and oxygen, form oxides with high melting points. The oxides act as a film to prevent the oxidation (cutting) of the steel by the flame. Thus the problem facing Air Reduction engineers was the elimination of these refractory oxides.

A fluxing process, first suggested ten years ago by Rustless Iron & Steel, does the trick. A measured amount of special flux is introduced into the oxygen stream, and carried automatically to the cutting tip. The flux converts the film-forming oxide into low-melting-point slag which flows away from the cut, allowing the oxyacetylene flame to cut through the metal.

• **Previous Methods Inefficient**—Stainless has been shaped in the past by mechanical means, by the carbon arc, and by hand torch. Mechanical methods—sawing, shearing, punching—are feasible for light gages, but not for heavy sections. These methods are costly, but have been used when a cut must be produced without impairing the characteristics of the steel.

Using the hand torch in a weaving motion, that holds the cut open, has been tried, but produces only a rough

cut. Variations of this method utilize "waster" plates of mild steel placed over the stainless to furnish additional heat for cutting. The basic shortcoming of both the hand-torch and carbon-arc methods is the use of melting rather than oxidation for cutting. As a result, shaping is slow, expensive, and inaccurate.

• **Flux Feeder**—Air Reduction's method is adaptable to simple equipment. The addition of a simple flux feeder to standard oxyacetylene cutting installations permits economical, high-speed cutting. The flux-feeder unit consists of a combination hopper and dispenser which can be present to deliver the required amount of flux into the oxygen stream. Installation costs about \$400.

• **Impact**—An immediate application of the technique can be made in mill and

foundry to reduce grinding operations, simplify removal of risers, and to cut billets and heavy shapes. It is now being used by the oil industry, and Air Reduction executives say that the automobile, machine-tool, and chemical industries are engaged in studying the process.

By reducing fabrication costs, machine flame-cutting exerted a tremendous influence in widening the applications of mild steel. It is probable that the new method of flame-cutting will exert a like influence in the stainless-steel field.

NEW TEXTILE FINISHES

Two new, easily applied textile finishing agents were announced last week by the Naugatuck Chemical division of United States Rubber Co. Both treatments—one a permanent stiffening agent (Kandar) and the other a shrink preventive for woolens (Koloc)—are derived from petroleum and coal tar, require no special equipment for application in the mill, and need no curing.

Kandar is an aqueous dispersion of a thermoplastic resin. Among its claimed attributes: It can be applied to any fiber; it increases the strength of the treated materials 5% to 10%; it assists in controlling stability. Cost is



Strain Gages Measure Santa Fe Bridge Loads

Strain gages, which translate mechanical strain into electrical readings (BW-Jun. 29 '46, p56), have gone to work on the railroad. Santa Fe engineers have adapted the tiny wartime measuring devices for testing bridges to see that members are not stressed beyond safe limits.

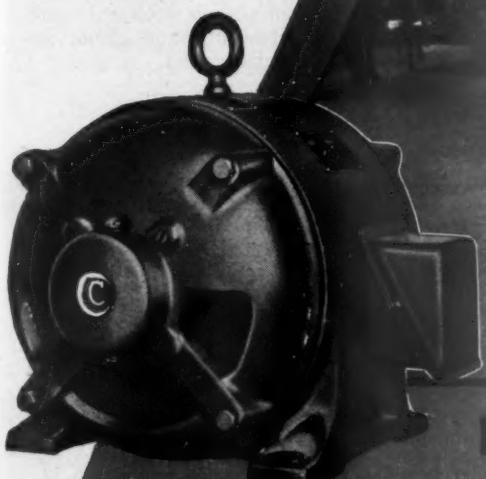
Magnetic and resistance strain gages, electronically operated, are placed on the structure at points to be checked. Auxiliary equipment in-

cludes oscilloscopes for converting the instrument impulses into graphic records.

Shown above is an installation on a bridge near Topeka, Kan. Wires lead from test points to a portable house in which recorders are located.

Santa Fe technicians state that the same equipment can be adapted to measure pressures in steam and diesel cylinders and to test the smoothness of train rides.

**Carefully
Balanced
Century
Motors**



Century 3 horsepower squirrel cage motor driving a grinder.

Help Maintain

Close Tolerances

The unusual freedom from vibration of Century Motors means that the accuracy of your Century powered machines is protected. You get all the precision your equipment is designed to give. Production rejects are fewer.

Century motors maintain their smooth starting and running qualities throughout a long life of satisfactory service, because they are ruggedly built to withstand the toughest kind of service.

Century's wide range of types and sizes from 1/6 to 400 horsepower enables you to select the correct standard Century motor for your application — without sacrificing the qualities necessary to the operation of your equipment. Specify Century on all your electrically powered equipment.



THE CENTURY ELECTRIC COMPANY

1804 Pine St. • St. Louis 3, Mo.
Offices and Stock Points in Principal Cities

Better Lunches Avoid the P.M. Lag



PIX Food Service Equipment played an important part in many of America's leading war plants where better nutrition helped to speed production. Where mass feeding required complete kitchen and cafeteria service, PIX Engineers lent their long experience. Where mobile feeding was best suited, PIX Portable Food Bars brought energy-building relief direct to the worker's bench.

Today, when post-war competition calls for ever-increasing output, you can profit by PIX vast experience with mass feeding. PIX Engineers can plan the facilities your workers should have—whatever your budget.

Write for the complete story and illustrated booklet.

ALBERT PICK CO., INC.
Dept. C 2159 Pershing Road, Chicago 9

AMERICA'S LEADING
FOOD SERVICE EQUIPMENT HOUSE



said to be about half a cent per yard treated.

Wool shrinkage is reportedly reduced from the 30%-to-40% range to as little as 2% or 3% with the Koloc treatment. Koloc-treated textiles are said to be 10% stronger than un-

treated fabrics, and to have 50% greater abrasion resistance.

Both agents are invisible and are insoluble in laundering or dry cleaning solutions. Both are applied by dipping, squeezing between rolls, and quick-drying.

THE PRODUCTION PATTERN

Needed: Answer, Not Excuse

The stock-phrase department—always ready with a simple answer to a complex problem—got yeoman service out of "Don't you know there's a war on?" When this lost its point, a variation on the theme was introduced: "Don't you know there's a strike on?" This has worn thin, and another version is now circulating widely: "Don't you know productivity is low?"

Like its predecessors, the last of these glib answers frequently confuses the real issue for management and lets an excuse block off a search for a remedy. For, regardless of how "productivity" is defined (BW—Nov. 2 '46, p16), management must still find the answer to the problem of increasing output and reducing costs.

What basic steps can be taken in this direction and how effective will they be?

Management executives in discussing a basic approach to the problems of productivity have classified the areas of study into (1) organization, (2) standardization, (3) mechanization, and (4) education. The areas are interdependent, and management action in one or all of them is imperative today.

Organization

Decentralization of plant facilities—increasing the number of satellite plants, and decentralizing operating units within large plants—is a step toward more efficient production that becomes possible under improved organization. Such a step encourages more effective control of production and costs. Carefully planned training courses, to build up a reservoir of competent supervisory and management personnel, are an essential corollary.

Standardization

The benefits of standardization—reducing to a minimum minor variations in product design—are well recognized by industry (BW—Oct. 5 '46,

p82). Standardization permits longer manufacturing runs with given set-ups; reduces inventories of raw material, work in process, and finished goods; and simplifies clerical work. Out of standardization comes improved mechanization.

Mechanization

Any study of the possibilities of further mechanization of operations not only should review existing methods and equipment, but should take into consideration all elements of the manufacturing job: buildings, machinery, equipment, processes, and material flow. The cost-cutting value of spot mechanization, involving only a few machines, can be lost by poor materials-handling and ineffective integration with the rest of the line. Effective mechanization not only increases output and reduces costs, but often improves quality of product. It is a fruitful field for production improvement in many plants.

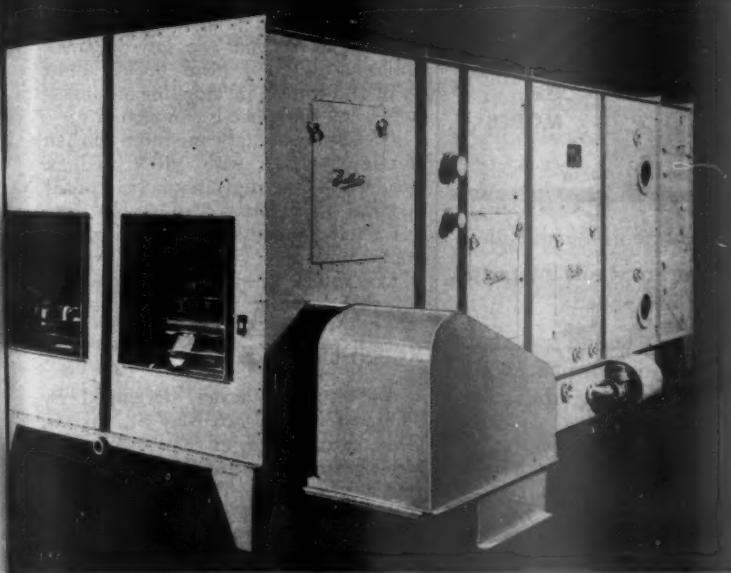
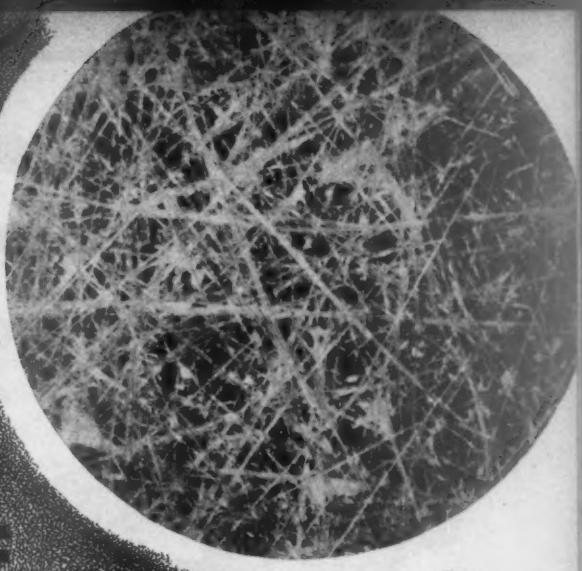
Education

As often pointed out, the success of any or all of these steps toward increasing output and cutting costs depends on the availability of an informed and willing work force, led by informed and willing supervisors capable of inspiring the respect and confidence of the individual employee. Intensified educational activities, within the plant and in the community, are essential. With employee understanding, better cooperation and more plant efficiency can be expected. Education, although the most intangible aid to productivity, is probably the most important.

These points will serve to highlight the broad lines of the over-all "productivity" campaign that management must undertake. But the problems of the job ahead should not be oversimplified. Later Production Patterns will go beyond the highlights to discuss each possible move in turn, implementing theory with specific examples.

The sp
"Buffal
rema
troubl
form f
filters
uperior
efficien

DUST GETS OFF HERE



The spun glass filter pictured above is a big reason why "Buffalo" Air washers *save you money*. It's part of the remarkably thorough cleaning system in these quiet, trouble-free units. Constantly bathed in a curtain of uniform fine spray by improved "Buffalo" nozzles, these filters literally scrub your air free of dust . . . for the superior air conditions that mean *peak comfort, health and efficiency in your plant and office*.

as
"Buffalo"

**WET GLASS CELL
AIR WASHERS**

*Condition
Your Air*

"Buffalo" Wet Glass Cell Air Washers are easily installed, require little power for fan and pump, and their servicing is very simple.

Why not ask your local "Buffalo" representative about low-cost dust removal? Or simply write for Bulletin 3457 today.

BUFFALO FORGE COMPANY

458 BROADWAY

BUFFALO, N. Y.

Canadian Blower and Forge Co. Ltd., Kitchener, Ont.

"Buffalo"

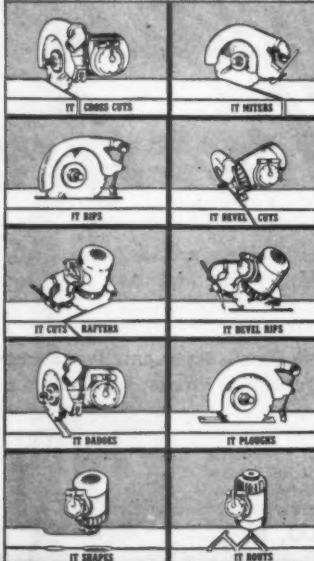
**WET GLASS CELL
AIR WASHERS**

Presenting America's most popular, all-purpose woodworking machine!



GE
MODEL

DeWalt is a complete shop in itself



...and with proper
tools makes any
cut possible!

You, as an executive, are vitally interested in the new era that lies ahead.

That's the reason we're telling you about DeWalt in this publication, instead of trying to reach you in a trade publication.

The new era in woodworking—in all types of industries—will demand a machine like DeWalt.

This versatile, all-purpose power saw is the machine you should consider first. It is ideal for general carpenter maintenance in or outside the plant, for crating and boxing, for intricate pattern work, or for general woodworking.

DeWalt is the machine that will bring new standards of efficiency and production to your cutting jobs no matter how—where—or when you cut wood.

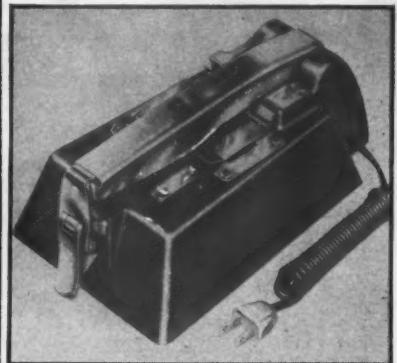
Write for a copy of the DeWalt catalog, and discuss this machine with your technical men. DeWalt Products Corporation, BW-3511 Fountain Ave., Lancaster, Pa.

DeWALT

NEW PRODUCTS

Film Splicer

Lektra Laboratories, Inc., 30 East 10th St., New York City, has announced an electric 16-mm. splicing



machine designed to splice all types of film in 15 seconds or less. Named Splicemaster "16," the device butt-welds and trims film, stopping automatically when the splice is completed.

The Splicemaster, mounted on an aluminum base with steel fittings, weighs 5 lb. and measures 9x5½x4 in. It operates on 110 v. a.c., 60 cycles, and has a self-compensator for line voltage fluctuations.

Availability: limited quantities available in December, 1946.

Roach Electrocuter

An electrical device developed by Turner & Davis, 726 May St., Akron, Ohio, exterminates or traps roaches. A box 12x8x6 in. has two metal bands inside, near the top. These carry current. A power transformer steps voltage from 110 to between 250-550 v. Amperage is reportedly so small as to be harmless to humans.

Banana peelings, or other bait, placed inside the box attract the insects, which are exterminated by the high frequency as they cross the metal bands, or are trapped inside.

Availability: deliveries expected in six to eight weeks.

Filing Aid

File-Bloc is a new filing device produced by Booth Industries, 1238-60 Third National Bldg., Dayton 2. By placing two File-Blocs in the front and two in the back of a file drawer, folders and guides are held at an angle causing the tops to fan like a book. The manufacturer states that when files are referred to, they stay open, visible, and accessible.

The device is constructed of cad-

mium-plated steel, and is packaged in dozen or gross quantities.

Availability: immediate delivery.

Grinding Wheel

V-Eight, a grinding wheel manufactured by American Emery Wheel Works, Providence, R. I., is designed to grind high-chrome die steel without damage to wheel corners.

Similar in structure to porous wheels, V-Eight reportedly makes difficult cuts on high-grade steels faster with a minimum of heating and with less dressing than is required for other type wheels.

Availability: immediate delivery on standard sizes; others, four to five weeks.

Carton Adhesive

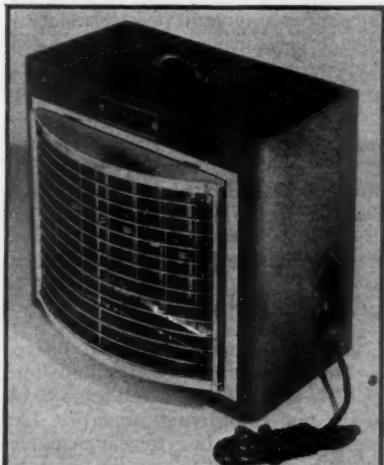
An adhesive, U. S. Royal M6165, for sealing corrugated paper cartons has been developed by chemists of United States Rubber Co., Rockefeller Center, New York City. The cement is said to produce a permanent bond resistant to high and low temperatures. It can be applied with a spray gun. The product has a synthetic rubber base.

Availability: immediate delivery in limited quantities.

Heater-Cooker Ventilator

A triple-utility electric household unit produced by Warren Simpson Corp., 110 E. 3rd St., Mt. Vernon, N. Y., is reported to heat, ventilate, and cook. The Air-D-Lux, rated at 1,700 watts on 120 volts a.c., employs a variable-speed fan and six element-heated reflector fins. It is claimed that the unit can raise the temperature of an average-sized room 20 degrees in 18½ minutes. For use as an air-moving device, the heat elements are switched off, allowing the fan to operate independently.

Placing the heater on its back converts it to a cooking unit. Rubber legs



HYSTER INDUSTRIAL TRUCKS

DO MORE WORK . . .

REGARDLESS of your business—a quick and guaranteed method of increasing net profits is to cut materials handling costs by using Hyster industrial lift trucks.

Hysters are materials handling expediters that do an amazing amount of work—*save time and money*—release manpower for more productive jobs in factory, field or warehouse.

Hyster models range in capacity from 2000 lbs. to 30,000 lbs. All models are *pneumatic tired*, gasoline powered, engineered and built for fast, efficient and enduring service.

Illustrated literature sent gladly.

HYSTER COMPANY

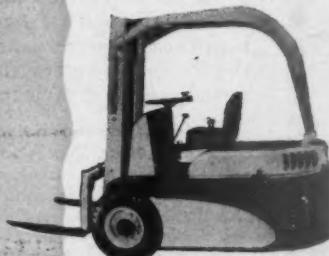
2307 N. E. Glaciarus St., Portland 3, Oregon

1807 North Adams Street, Peoria 1, Illinois

Sold and Serviced Through Distributors
in Principal Cities All Over the World



Hyster "20"
2000 lb. capacity.



Hyster "40"
4000 lb. capacity.



Hyster Karry Krane
10,000 lb. capacity.
Mobile crane truck;
adjustable boom.



Hyster Straddle Truck "M" 12,000 lb.
capacity. Model "MH" (not shown) has
30,000 lb. capacity.



Hyster "75" 7500 lb. capacity.
Hyster "150" (not shown) has
15,000 lb. capacity.

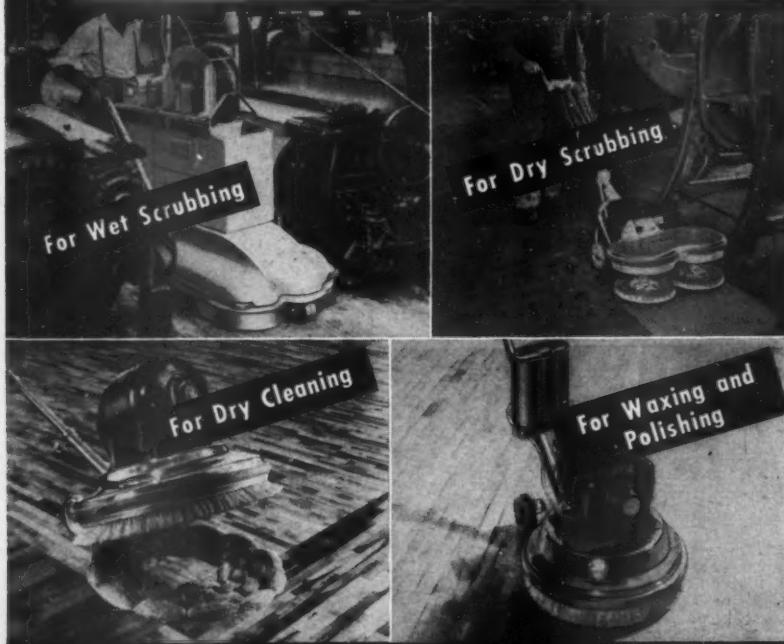
WORLD'S LARGEST MANUFACTURER OF PNEUMATIC TIRE LIFT TRUCKS AND STRADDLE TRUCKS

There's A Job-Fitted Finnell FOR EVERY TYPE OF FLOOR CARE

In the interest of safety and sanitation, floor-preservation and economical maintenance, some floors require *wet scrubbing*. In mills and factories, for example, wet scrubbing with a mineral oil solvent affords the most effectual means of quickly and safely removing grimy oil and grease. But in machine shops, where grimy oil and grease mix with shavings and form heavy coatings on the floors, speedy removal of the embedded accumulations calls for heavy duty *dry scrubbing*. Floors that are best maintained by waxing are *dry cleaned and polished* in a single operation by the labor-saving method of steel-wooling.

Different floors and conditions call for different methods and equipment for adequate floor care. That's why *Finnell* makes *more than a score* of floor-maintenance machines and supplies several of their models in a wide range of sizes. From the complete *Finnell* line, it is possible to choose *job-fitted* equipment! *A Job-Fitted Finnell* provides the greatest brush coverage consistent with the area and arrangement of the floors — whether the job calls for *wet scrubbing*, *dry scrubbing*, or *dry cleaning* . . . or for *waxing* or *polishing*.

Finnell also makes a full line of *Cleansers*, *Sealers*, and *Waxes*, as well as *Steel-Wool Pads*, *Mop Trucks*, and other accessory equipment. For consultation, free floor survey, or literature, phone or write nearest *Finnell* branch or *Finnell System, Inc.*, 3811 East Street, Elkhart, Indiana. Canadian Office: Ottawa, Ontario.



FINNELL SYSTEM, INC.

Pioneers and Specialists in
FLOOR-MAINTENANCE EQUIPMENT AND SUPPLIES

BRANCHES
IN ALL
PRINCIPAL
CITIES

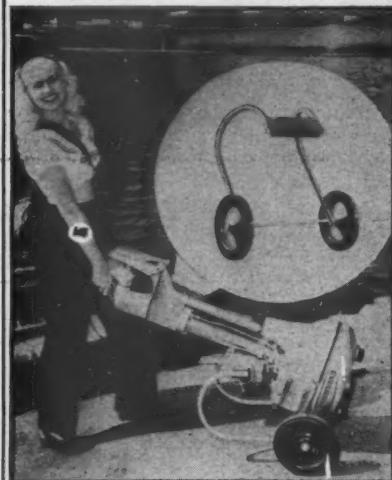
on the bottom and back are said to protect any surface on which it may be placed. The device is lined with aluminum, and housed in wrinkle-finished formed steel.

Availability: delivery after Dec. 1, 1946.

Motor Carrier

Sports Mfg. Co., 2029 Blake St., Los Angeles 26, has introduced a new outboard motor carrier which, it states, simplifies transportation, handling, and stowage of the motor.

Marketed under the name Sportsman's Pal, the carrier includes a wooden



crossblock to which the motor is fastened. The motor may then be pushed easily, it is claimed, balanced over the carrier's solid rubber wheels. The tubular-steel carrier can be hung by its axle with motor attached when stored. Cadmium-plated parts resist rusting.

Availability: immediate delivery.

Poultry Scalding

Equipped with a solenoid-actuated gas valve and thermostatic controls, the Greenbrier automatic poultry scalding machine is said to be capable of scalding 1,000 birds an hour.

The machine, which is produced by Greenbrier Co., 1783 E. 11th St., Cleveland, consists of a metal cage set in a scalding and dipping tank over two gun-type gas burners. The cage rotates for a preset length of time and stops in an upright position.

Availability: immediate delivery.

Cellulose Compound

CMC, a cellulose derivative, offered by Hercules Powder Co., Wilmington, Del., is said to have film-forming, adhesive, and emulsifying properties. The compound, according to the manufacturer, is insoluble in organic solvents,



How do you feel a steel company's pulse?

The pulse of a business, telling whether it is ailing or healthy, is found in its records... in the figures that show its costs, sales, and profits.

This is as true for a great steel company as it is for a one-man store. In many of the country's foremost businesses, modern National Accounting-Bookkeeping Machines take the vital pulse-figures of business with surprising savings in money and man-hours.

The uses for these National accounting systems are as broad as accountancy itself. For example, one company with thousands of salaried employees spread through most of the States of the Union, set up a centralized system for paying all salaried employees using National Payroll machines. This not only makes

possible the speedier and more efficient preparation and distribution of its salary checks, but also collects and records the necessary tax figures.

Another great concern, which started using Nationals for posting customers' accounts in one of its divisions, found the system so satisfactory that it has now extended its use to all its divisions.

Such experiences are typical. An experienced National representative will be glad to show you how your business can profit by the right National system. Let your own bookkeeping department check his recommendations. Then base your decision on their advice. There is no obligation, of course. The National Cash Register Company, Dayton 9, Ohio. Offices in principal cities.

Making business easier for the American businessman



The National 2000 Payroll Machine

National

CASH REGISTERS · ADDING MACHINES
ACCOUNTING-BOOKKEEPING MACHINES



■ The high cotton fiber content . . . 75% . . . of Stonewall Ledger, the care used in its manufacture, give it strength and durability well beyond the average. Stonewall Ledger has excellent ruling, writing and erasing qualities, is ideal for bonds, deeds, journals, legal instruments and other forms subject to constant handling.

NEENAH

FINE BUSINESS PAPERS FOR EVERY PURPOSE

These famous names identify the papers manufactured by the Neenah Paper Company. The name *Neenah* appears in each watermark to identify the genuine for your protection.

OLD COUNCIL TREE BOND

SUCCESS BOND

CHIEFTAIN BOND

NEENAH BOND

NEENAH THIN PAPERS

TUDOR LEDGER

STONEWALL LEDGER

RESOLUTE LEDGER

NEENAH LEDGER

NEENAH INDEX BRISTOL

NEENAH PAPER CO. • NEENAH, WIS.

and can be rendered soluble, or relatively insoluble, in water.

CMC's reported ability to increase and control viscosity of water and to form films is said to make it useful in textile manufacture. The properties of the cellulose gum are also claimed to be of value in the manufacture of cosmetics, ceramics, rubber, paper, and paint, as well as in printing.

Availability: immediate delivery in limited quantities.

Chemical Cleaner

A cleaning device electrically heated and employing a finely atomized spray of water is announced by Hartman Corp. of America, 6417 Manchester Ave., St. Louis 10. Elimination of



all smokestacks, flues, and ventilators is said to make the unit entirely portable indoors and out.

Employing multiple safety devices, the cleaner reportedly eliminates fire and explosion hazards, injurious fumes, vapors, and chemical-laden steam, thus protecting the operator. A ceramic core boiler heats tap water to operating temperature in approximately one minute, it is claimed.

Availability: limited delivery in first three months of 1947.

Timing Motor

Developed to maintain constant speed at a given frequency, the SX synchronous motor, produced by R. W. Cramer Co., Centerbrook, Conn., is said to be suitable for use in timing devices, in recording and communication equipment, and in traffic, heating, and signaling systems. The unit is self-starting and self-lubricating.

The motor, which measures $2\frac{1}{2} \times 2\frac{1}{2}$ x $1\frac{1}{2}$ in., furnishes 30 in. oz. torque at 1 r.p.m., using 2.7 watts of 60-cycle current at 115 or 230 volts. Rotor

80 MILE GALE BLOWING...



HAS YOUR BUILDING THIS RAINCOAT?

One bad storm will result in costly damage to your unprotected building and contents. To protect your building and beautify it is now a simple process with Waterfoil. Unlike any other protective coating, Waterfoil is made of irreversible inorganic gels which bond both chemically and physically to masonry surfaces. By helping to impede water penetration into concrete, brick or stucco walls,

Waterfoil also prevents reinforcing bar rust, spalling or disintegration. Don't wait for the gale. Write for the literature today—it's important to all building owners.

*Horn Products and Methods Protect Millions of Square Feet of Surface
Throughout the Nation*



A. C. HORN COMPANY, Inc.

Established 1897

Manufacturers of Materials for Building Maintenance and Construction

43-36 Tenth Street, Long Island City 1, N. Y.

Houston, Texas

Chicago, Illinois

San Francisco, Calif.

Toronto, Canada



WATERFOIL

THE UNIQUE TREATMENT FOR EXTERIOR MASONRY SURFACES

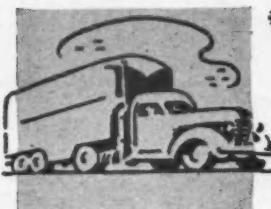
*IT ALL ADDS UP TO

WORCESTER

MASSACHUSETTS



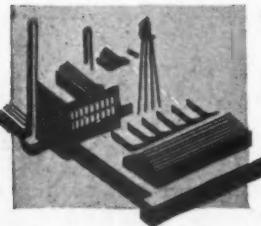
***MARKET** — Nearly six and a half million people within seventy-five miles — the logical center of New England's five billion dollar retail purchasing volume. Number of consumers is three times greater per square mile than U. S. average.



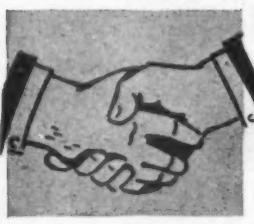
***DISTRIBUTION** — Worcester's strategic location gives you less back haul, fewer traffic bottlenecks, saves time, freight and trucking costs. Large classification yards expedite freight and speed distribution to major New England markets.



***TRANSPORTATION** — All New England is readily accessible from Worcester whose three major railroads, fifty motor truck lines, and airline service make it the logical distribution point for the area.



***LABOR SUPPLY** — Worcester, with many types of skills available, offers a fertile source of productive labor. Excellent cooperation between labor and management has kept Worcester high above the national average for full operation.



***ENVIRONMENT** — Beautiful country, stimulating climate, good schools, five colleges, museums of art, science and history, churches, parks, music festivals provide gracious living in Worcester.

Write the Industrial Bureau, Worcester Chamber of Commerce, for further information. Engineering surveys of your problem available on request.

WORCESTER:

NEW ENGLAND'S *Logical*
POINT OF DISTRIBUTION

speed is 240 r.p.m. Output speeds varying between 60 r.p.m. and one revolution in 24 hours are available through use of 28 interchangeable gear-trains. Average heat rise is reportedly 30 C at the rated voltage.

Availability: sample lots prompt; quantity delivery in 14 weeks.

High Fork Lifter

A reach of 18 ft. above floor level is claimed in a new fork-type industrial truck designated Model F 24 T by Elwell-Parker Electric Co., 4205 St. Clair Ave., Cleveland 14. Handling loads on pallets or bare forks, the truck is said to lift 4,000 lb. to a height of 11 ft. and 3,000 lb. to a height of 18 ft. Front-wheel drive and rear-wheel steering are incorporated.

Operated by three electric motors for elevating, tilting the uprights, and traveling, the machine lifts at a reported rate of 13 ft. per min., lowers at 20 ft. per min., and travels 5 m.p.h. Tilting limit is 15 deg. backward and 5 deg. forward from vertical. A telescoping secondary lifting frame, not apparent in lifts of 11 ft. or less, operates on ball bearing rollers in alloy steel tracks inclosed in the primary frame.

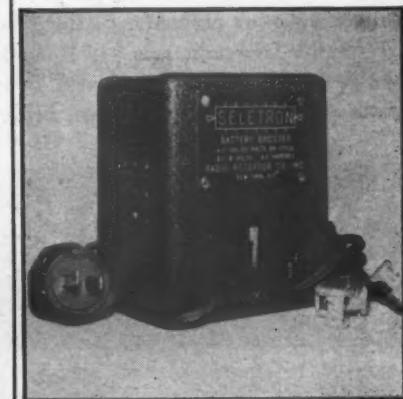
Availability: deliveries to begin December, 1946.

Battery Charger

An automatic constant-voltage battery charger designed for industrial plants using six volt storage batteries is announced by Radio Receptor Co., 251 West 19th St., New York City. The unit is housed in a cold rolled steel case 4x4x5 in., and weighs approximately 4 lb.

Operating on a 60 cycle a.c. input of 105 v. to 120 v., the Seletron battery booster is rated at a 4-amp. initial output tapering to 2 amp. as the battery becomes charged. A selenium rectifier and automatic circuit breaker reportedly assure constant output voltage, slow charging, and overload protection.

Availability: deliveries starting in December.



NEW! THE OZALID STREAMLINER



- Reproduces typed, drawn, printed, or photographic material in seconds—without stencils.
- Moderately priced... designed for the thousands of offices, drafting rooms, schools and colleges that want these 5 **EXTRA VALUES** in Printmaking—

1. EFFICIENCY! Type, draw, or print in usual manner on ordinary *translucent* paper... and that's your "MASTER," ready to turn out as many reproductions as you need.



No stencils to cut... no smearing... no special filing cabinets... practically no limitations as to size. Your originals can be up to 42 inches wide, any length. A manifold accounting machine report a hundred yards long is no problem!

Simply feed it into the Streamliner on a roll of Ozalid sensitized paper—instead of on Ozalid cut sheets.

OZALID PRINTS are delivered completely dry, ready for immediate use—the same size as your original.



2. SPEED! ONLY 25 seconds to reproduce your standard-size originals as easy-to-read positive (not negative) prints.

3. ECONOMY! An 8½ x 11-inch reproduction costs you one cent; 11 x 17 inches, two cents... and so on. The Ozalid Streamliner soon pays for itself... in time, labor, and dollars saved.

With it, you can establish new, economical business systems—use trans-



lucent records, file cards, ledgers... get prints in seconds, whenever needed.

4. VERSATILITY! You can reproduce the lines and images of any original in black, blue, red, sepia, or yellow... on paper, cloth, foil, film, or plastic.

Simply use the Ozalid sensitized material you think best for job at hand; e.g., use black-line paper to match original typing... DRYPHOTO to produce



beautiful continuous-tone prints from film positives (which can be made from

any negative)... OZAPLASTIC to produce oilproof, waterproof prints for salesmen's booklets, etc. All prints are made in same fast, economical manner.

5. SIMPLICITY! NOW—printmaking is an easy desk job, automatic in practically every detail.



Anyone can feed originals and sensitized material into the Ozalid Streamliner. Prints are delivered on top, stacked in order—within easy reach of the operator, who does not have to leave her chair.

You can install your Streamliner anywhere; it requires only 11 square feet of floor space.

Write today for free, illustrated booklet... showing all the ways you can use the new **OZALID STREAMLINER**... and containing actual reproductions—like those you can make.

Gentlemen: DEPT. 179
Please send New Ozalid Streamliner booklet... containing reproductions of drawn, typed, printed, and photographic material. No obligation.

Name _____

Position _____

Company _____

Address _____

OZALID

DIVISION OF
GENERAL ANILINE AND FILM CORPORATION
Johnson City, New York

Ozalid in Canada
Hughes Owens Co., Ltd., Montreal

How Investors Can REDUCE NEEDLESS RISKS in Today's Markets

Many investors are presently inclined to avoid positive decisions until the immediate outlook for security markets becomes more clearly discernible. In their efforts to maintain a "conservative" viewpoint, they tend unwittingly to adopt an even more hazardous "do nothing" policy.

While no one can ever eliminate all hazards from investing, Moody's is today assisting many investors to keep their capital gainfully employed with minimum risk through.

Moody's Stock Survey

Each week this practical publication brings you timely facts and sound guidance on which to act with enlightened judgment. Each week it gives our reviews on the immediate outlook for stocks and our considered opinion on prudent longer-term investment policy.

Additionally, it contains analyses

of basic industry groups and their leading issues, with suggestions for purchases and substitutions.

Moody's STOCK SURVEY can be of inestimable value to the thoughtful investor seeking trustworthy assistance. We will be pleased to send you a copy of the current issue. Please ask for Bulletin 28 W.

MOODY'S INVESTORS SERVICE

65 BROADWAY, NEW YORK 6, N. Y.

BOSTON • PHILADELPHIA • BALTIMORE • ATLANTA • PITTSBURGH
CLEVELAND • CHICAGO • LOS ANGELES • SAN FRANCISCO • SEATTLE

Financing the Progress of Closely-Held Corporations

Many closely-owned corporations today face unexpected drains on their resources. Adjustments to postwar competition involve larger production at higher costs . . . techniques of manufacturing requiring new and advanced equipment . . . marketing and merchandising efforts far beyond prewar standards.

To meet such conditions successfully, substantial additions to working capital are often necessary.

As investment bankers Paine, Webber, Jackson & Curtis for 67 years has served the leaders of American industry. Your financing plans may include the retirement of preferred stock, the refunding of existing debt, plant expansion, or the partial distribution of closely held common stock. Whatever your needs you are invited to discuss your problem with any of our partners or managers. No obligation is involved.

PAINE, WEBBER, JACKSON & CURTIS ESTABLISHED 1879

Members New York Stock Exchange and Other Principal Stock and Commodity Exchanges

NEW YORK BOSTON CHICAGO DETROIT CLEVELAND PHILADELPHIA MILWAUKEE
MINNEAPOLIS AKRON CONCORD DULUTH ELMIRA GRAND RAPIDS HARTFORD
LOS ANGELES LYNN PROVIDENCE SPRINGFIELD ST. PAUL WORCESTER

FINANCE

(THE MARKETS—PAGE 114)

New Money Need

Corporations find huge war-built reserves insufficient for mounting labor and material costs and needed expansion.

For domestic corporations as a whole, the 1941-45 war years brought the biggest earnings bonanza in history.

By 1941, U. S. corporate earnings had zoomed to nearly \$7,300,000,000 after taxes from their 1936-39 yearly average of but \$3,300,000,000. They ranged between \$8,700,000,000 and almost \$10,000,000,000 the next three years after 1941 even though federal tax levies absorbed 53% of before-tax earnings. And the 1945 corporate net, although distorted by heavy chargeoffs, tax carryback credits, etc., was well over \$6,800,000,000.

• But Not Dividends—These years, however, did not bring a similar bonanza to stockholders. Annual dividend disbursements in 1941-45 ranged between \$4,200,000,000 and close to \$4,600,000,000, compared with the \$4,100,000,000 annual average that was chalked up during the 1936-39 prewar period.

There are many reasons to account for the cautious dividend policies as-



Under Charles E. Wilson, General Motors—like other companies that showed big wartime rises in working capital—is in the market for cash.

Boundless Horizons of Engineering Service

Mallory Service literally begins long before the sale is made... and continues as long as the product is in use...

Mallory engineering service reflects the broad horizon of progress in specialized metallurgical and electronics development. Many an advance in product betterment has resulted from Mallory engineers' adventuring into virgin fields of research to produce hitherto undreamed-of results.

Some of these developments, such as the Mallory Dry Battery—the so-called mercury battery—and Mallory silver-bonded bearings, have had imposing war records. Others, less spectacular, but nonetheless significant, have pointed the way to advances in standards that have made practical many a manufacturer's dream.

Mallory Mercury Batteries now make practical smaller, more convenient hearing aids. Mallory Vibrators made automobile radio a practical accessory to motoring; Mallory Capacitors play a role in lengthening the life of radio sets and refrigerators. Mallory Contacts do a job for better automobile horns and ignition systems. Mallory Resistance Welding techniques have lowered costs by providing special-alloy welding tips used for welding automobile bodies and stream-lined trains; Mallory Inductuners promise much for television. A Mallory switch is the heart of the automatic washer. These are but a few examples.

Long before some specifications are drawn, Mallory engineers have been working on component parts, designed to improve consumer goods. Cooperating with customers and prospective customers, Mallory engineers have also played an important role in new product design. Engineering data books have made available information never before compiled. The

Mallory Contact Data Book and the Mallory Resistance Welding Data Book are typical examples of Mallory cooperation with industry.

But Mallory service never stops there. Mallory's experience with component parts is available to help service the products in which Mallory parts are used. The Mallory Radio Service Encyclopedia and Technical Manual provide invaluable aid to radio service engineers. Mallory engineering bulletins constantly are responsible for improvements in methods as well as products.

It is our ambition to pioneer with precision quality that produces better products at lower costs. How well we are succeeding in that ambition may be gauged by the blue ribbon list of Mallory customers. Many manufacturers whose names are household bywords look to Mallory for action in developing new materials and designs, as well as depend on Mallory for precision quality.

Our engineers are at your service if your product problems fall within the horizon of our efforts. We will welcome the opportunity to demonstrate their capacity to serve you.

MALLORY

CAPACITORS — RESISTORS — ELECTRICAL INSULATORS — METALLURGICAL PARTS

MALLORY DRY BATTERIES

P. R. MALLORY & CO., INC., INDIANAPOLIS 6, INDIANA



Yes, when one businessman asks another: "Which company will do the best job for me on all insurance covering employees?"...

The most frequent answer is: “The Travelers.”

WHY?

Because it means better handling of all the complex and varied forms of employee insurance. Travelers men are experienced and have the background that can be found only in an organization which pioneered in Workmen's Compensation and Group Insurance.

Because lower insurance rates, as well as employee and public good will, often result from the safety engineering and sickness prevention services of The Travelers.

Because you and your business organization benefit from the intelligent handling of employee claims. The broad ex-

perience of Travelers claim men is a definite help to you at all times. The Travelers country-wide organization may be of untold value at any time. These Travelers claim men each year pay more than half a million employee claims which involve injury, illness, death, surgery, and hospitalization.

Because a plan that meets your business needs now, and that can be revised from time to time as these needs or conditions change, can be developed best by your own insurance broker or a Travelers agent, working with the specialized experts of The Travelers.

On *all* forms of Employee Insurance, you will
be well served by *The Travelers*

The Travelers Insurance Company, The Travelers Indemnity Company, The Travelers Fire Insurance Company, The Charter Oak Fire Insurance Company, Hartford, Connecticut.

Banking's Top Fifteen: Same Names, New Order

Because of the steady retirement of Treasury obligations and the drawing down of U. S. war-loan accounts, bank deposit totals have been dropping steadily during 1946. Thus far the downturn has necessitated no name changes in the 1945 year-end list of the nation's 15 largest commercial banks. By Sept. 30, 1946, however, according to a compilation of the American Banker, there had been a considerable shifting of position within those ranks.

Manhattan's Chase National Bank,

Rank	Sept. 30, 1946	Bank	Deposits (In Thousands of Dollars)	Rank Dec. 31, 1945
1	Bank of America (San Francisco)		\$5,280,471	2
2	National City (N. Y.)		4,723,044	3
3	Chase National (N. Y.)		4,642,025	1
4	Guaranty Trust (N. Y.)		2,773,265	4
5	Manufacturers Trust (N. Y.)		2,217,310	6
6	Continental Illinois (Chicago)		2,134,474	5
7	First National (Chicago)		1,980,096	7
8	Security-First (Los Angeles)		1,644,697	10
9	Central Hanover (N. Y.)		1,534,825	8
10	Bankers Trust (N. Y.)		1,433,590	9
11	First National (Boston)		1,391,838	11
12	Chemical (N. Y.)		1,180,429	12
13	National Bank of Detroit		1,111,926	15
14	Bank of Manhattan (N. Y.)		1,081,746	14
15	Irving Trust (N. Y.)		1,058,347	13

the nation's largest bank at the close of 1945, for example, has since experienced almost a 20% shrinkage in deposits which has dropped it into third position. San Francisco's Bank of America now reigns as No. 1, and the National City Bank of New York has become the second largest.

Other banks which have climbed nearer to the top this year include New York's Manufacturers Trust Co., the Security-First of Los Angeles, and the National Bank of Detroit.

WALL STREET

OIL: Wealth & Power

No mistake about it the nation that has the most oil has an important basis, at least, of wealth and power. In this the U. S. can consider itself fortunate—at present! It controls more than half of the total proved petroleum resources of the world and produces within its continental limits 60% of the world's output. However, the growing demand leaves no surplus. This causes many a furrow on military foreheads. They fear the U. S. will have to import half the oil we consume in twenty years. This concern is not fully shared by oil men who believe new reserves can be found and made productive enough to meet our economic and strategic future needs.



... enough or too little?

Clear-Eyed View: The nationwide investment firm of Merrill Lynch, Pierce, Fenner & Beane has just issued a new survey which underscores the role oil plays as a power behind much of our industrial civilization. Investors—with a stake of billions of dollars in this industry—will welcome this terse, clear-eyed assessment of the various factors confronting the industry. Here, for example, is discussed demand, methods of refining, prices and other relevant subjects.

"PETROLEUM—1946" contains detailed analyses of 38 leading companies, including charts, records of earnings, dividends and price ranges. One of the most timely of M L, P, F & B's surveys, "PETROLEUM—1946"** may be had by readers for the asking. They will find it contains information of real value.

*For your copy of "PETROLEUM—1946" address your request to: Dept. "BW," Merrill Lynch, Pierce, Fenner & Beane, 70 Pine Street, New York 5, N. Y.

sumed by management generally during the war.

• **Planning Ahead**—For one thing, many companies entered that period with sadly depleted liquid resources that had to be built up. Much "new" cash likewise had to be retained in corporate coffers to finance war-swollen industrial activity. It was also widely recognized that high dividends at a time when war business alone was responsible for the bulk of corporate profits would undoubtedly invite public criticism.

However, those weren't the only nor the most important reasons. Most managements realized that the early postwar years might well prove a very uncertain period for industry generally, due to reconversion and other problems. Thus they wanted to be well-heeled with cash when the war finally ended. Others wanted cash for postwar expansion.

• **Working Capital Rises**—American corporate management did an excellent over-all job in preparing for peace in time of war.

Net working capital of all U. S. corporations, according to Securities & Exchange Commission estimates, rose from \$24,600,000,000 at the close of 1939 to \$52,600,000,000 on Dec. 31, 1945. Corporate cash and government bond holdings in the same period, SEC

reports, rose from \$13,100,000,000 to \$43,400,000,000.

• **Inventory Demands**—Why then have "new capital" security offerings, in the face of such business liquidity, increased so sharply since the war ended? In the January-September period of 1946 they accounted for some 42% of the almost \$4,800,000,000 of corporate capital floatations. Also, why have commercial bank loans to business generally soared to new all-time highs week after week in 1946?

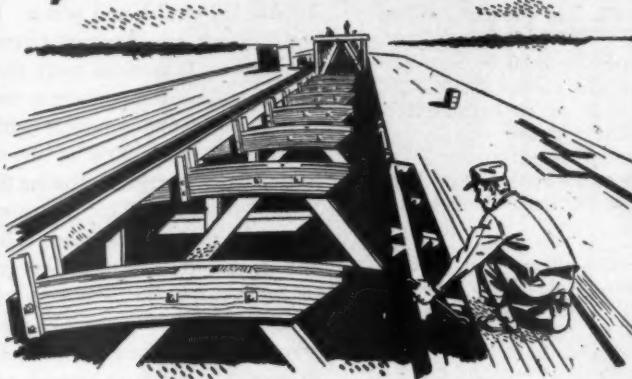
One answer is the consistent rise in recent months in manufacturing inventories. Another is supplied by the high rate of expenditures on new plant and equipment disclosed in the first nine months of 1946 (BW—Nov. 9 '46, p21).

• **More Cash Needed**—These factors, important as they are, however, aren't the only cause of the current corporate demand for new cash.

Most companies have found it necessary to maintain substantially-higher-than-prewar cash balances to handle their operations properly. Primary cause of this condition has been the postwar skyrocketing of labor and material costs (box, page 82).

Similarly causing a rapid evaporation of many war-accumulated cash reserves have been the serious postwar losses from such factors as strikes, material

Up where trouble threatens...



*Build in Protection with
WOLMANIZED LUMBER**

On roof structures, where moisture condenses, soaks into every niche and cranny . . . starts rot spots . . . Wolmanized Lumber is needed, badly! Why? Because in this lumber, impregnated with Wolman Salts* preservative by pressure treatment, rot will not set in. Your roof trusses and decks . . . Wolmanized . . . will give you many more years of service where rot-producing moisture is present.

LUMBER with a PLUS!

Wolmanized Lumber gives you all of wood's advantages . . . speed of erection, light weight, resilience, high insulating value, paintability, low first cost . . . long life.

**AMERICAN LUMBER
&
TREATING COMPANY**

*Registered trademarks

WOLMANIZING

FLAMEPROOFING

CREOSOTING

1656 McCORMICK BUILDING, CHICAGO 4, ILLINOIS

shortages, and the huge costs involved in reconverting facilities from war work to normal peacetime production.

• **Big Companies Hit**—The chief sufferers have not been confined to industry's smaller units. Leading manufacturers such as General Motors, General Electric, and Westinghouse have had unusually high expenses.

Between the 1939 year-end and mid-1945 General Motors' working capital rose from \$434,173,000 to around \$950,000,000 (cash and government bonds jumped from \$287,000,000 to \$592,000,000).

However, reconverting plants to their normal peacetime use and expanding production facilities have proved a huge and costly job. G. M. also found itself confronted soon after V-J Day with a long and expensive strike.

• **Getting New Capital**—Figures on Sept. 30, 1946, showed no governments held, cash off to \$160,143,000, and working capital down to \$664,000,000, despite the private sale to an insurance group last summer of \$125,000,000 of long-term debentures.

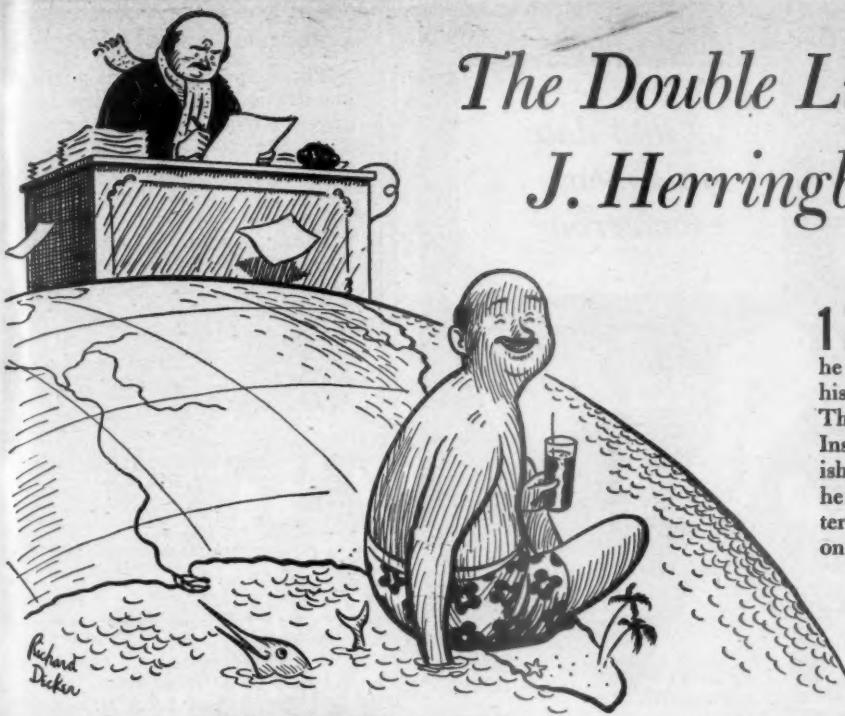
G. M.'s expansion plans now call for



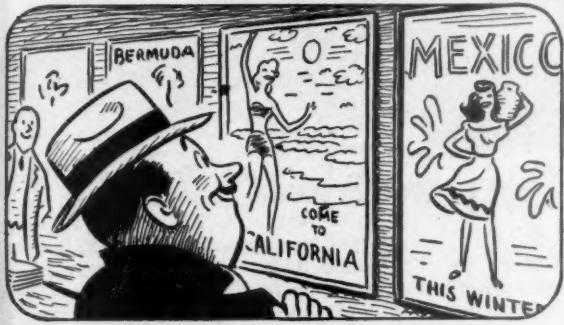
HIS PROMISE STUCK

Louis E. Nelson, president of the First National Bank of Maywood, Ill., proves to future customers that a banker keeps his word. New treasurer-elect of Cook County, he had made a pre-election pledge of a piece of bubble gum to "every kid in Maywood" if he won the office. Some 1,250 eager youngsters collected.

The Double Life of J. Herringbone Flannel



1 You've heard of J. Herringbone Flannel, the textile tycoon? Once he was so busy putting quality into his cloth that he never took a vacation. Then he found that Taylor Control Instruments would repeat his cherished formulas *automatically* whether he was there or not. Now he can winter in the South and keep an eagle eye on his plant at the same time!



2 Here's Mr. Flannel making up his mind whether to go to Hollywood, Mexico, or Palm Beach. Wherever he ends up, the moral is plain: If you're in a processing industry like textiles, food, chemicals, rubber, plastics, petroleum, Taylor Instruments can be your other self!



3 A dream of an example is the Taylor Fulscope Time Schedule Controller. It will repeat a process *exactly* every time with automatic Taylor Accuracy. All your operator does is load the vat, kettle, press, or what have you, and push a button. The Fulscope does the rest!



4 You'll establish a beachhead against competition because Taylor automatic controls will help you maintain uniform high quality. And you'll win the battle against rising costs because Taylor Accuracy will increase your efficiency. Ask your Taylor Field Engineer!



5 If you'd like to put your feet on a deck rail instead of a desk, write Taylor Instrument Companies, Rochester, N. Y. or Toronto, Canada. We make instruments for indicating, recording and controlling temperature, pressure, humidity, flow and liquid level.



"There have been some changes made around this office . . . now that Dictaphone Machines have been installed at key points. Memos that used to start their route 'days late' now get a day's head start. Outgoing letters, too—vital to a firm's efficient business—are speeded up and in the mail sooner when dictated this modern, quicker way."

Dictaphone* Saves the Day

HERE are scores of ways that Dictaphone Electronic Dictation saves the day for busy executives. There's precious time saved through every office channel.

Your secretary can be busy at the file cabinet—or on guard outside your door to ward off interruptions—while you dictate to her.

The letters, memos, reports, and spur-of-the-moment ideas that you talk into the microphone can be transcribed while

you're busy on future important orders of the day.

A blessing to you—a boon to your secretary—Dictaphone Electronic Dictation will give you a new lease on business life . . . will cut red tape, break bottlenecks.

It doubles your ability to get your work done. Your entire organization will feel the beneficial effects of this better business way.

Memo to you! The Dictaphone Model AE is as easy to use as your telephone. Requires less desk area than your letter-head. Why not ask for a demonstration today? Just call your Dictaphone representative. He's in your phone book!

DICTAPHONE Electronic Dictation

*The word DICTAPHONE is the registered trade-mark of Dictaphone Corporation, makers of Electronic and Acoustic dictating machines and other sound recording and reproducing equipment bearing said trade-mark.

Corporate Cost of Living

The housewife isn't the only one having trouble these days because of higher prices. Corporations face the same difficulties with their cost-of-living expenses. The problems of the Illinois Central R.R. provide a good example. • The I.C. recently reported that its purchasing department will have to pay about \$50,000,000 for various supplies this year that in 1941 would have cost \$10,434,000 less.

Why? Here are some of the reasons:

	Cost per Unit	1941	1946
Boxcars	\$2,447	\$4,275	
Automobile cars	2,885	4,310	
Hopper cars	2,358	3,675	
Flatcars	1,829	2,900	
Rail (per net ton)	38.50	43.39	
Track spikes (per kg)	6.00	7.30	
Coal (avge. per ton)	1.89	2.34	
Crossties	1.06	2.06	
Air brake hose rubbers	.74	.94	
Car brake shoes	.58	.78	

over-all expenditures of \$590,000,000, including \$290,000,000 already spent. Its program likewise takes into consideration the additional working capital required "under anticipated postwar conditions of expanded production and higher price levels" and late this month it intends to acquire more new cash through sale of 1,000,000 shares of new preferred stock.

• G. E. Borrowed, Too—General Electric's postwar experience has been similar to that of G. M. It saw working capital rise by almost \$100,000,000 to \$262,000,000 (cash and security holdings jump from \$111,000,000 to \$249,000,000) in the 1939-45 period. But its liquidity shrank sharply due to higher costs, the losses engendered by a two-month strike, and heavy plant-expansion expenditures.

As a result, the company recently found it necessary to borrow \$100,000,000 from banks to augment its supply of cash. Now G. E. is arranging \$200,000,000 of permanent long-term financing (BW—Nov. 9 '46, p77) to refund its earlier bank borrowings and improve its cash position substantially.

• Still More Financing—Westinghouse, \$45,000,000 in the red before tax adjustments in the first half of 1946 due to labor and reconversion troubles and higher costs, has had to take similar financing steps. Even though it had a working capital of \$245,000,000 (with cash and securities of \$102,000,000) at the 1945 year-end, compared with only \$102,000,000 and \$41,000,000 six years before, it has since found it necessary to incur \$80,000,000 of bank loans and sell \$30,000,000 of debentures to the public.

These deals don't represent all the



**IF YOU
OWN PROPERTY,
YOU SHOULD OWN
THIS BOOK!**

... send for your FREE Copy today!

If you own property of any sort . . . a home, an automobile, personal effects . . . you need this U. S. F. & G. Personal Insurance Audit Book! Clear, simply-worded and with each hazard illustrated, this book enables you to make your own complete insurance audit. It provides a permanent record of property values, amount of present insurance, premium rates, expiration dates, etc., thus giving you your fire and casualty insurance picture at a glance.

A Book for Business, Too

Where the Personal Audit records your personal insurance needs and coverages, the U. S. F. & G.

Graphic Audit provides a similar record of your business insurance. You'll be able to tell at a glance whether the fire insurance carried on your place of business covers the personal property of employees . . . whether burglary insurance also covers damage caused by burglars . . . whether fidelity bonds cover all employees, and so on. The Graphic Audit is a "must" for any business!

Mail Coupon Today

To get your copy of the Personal Insurance Audit, to have a Graphic Audit made or for both . . . fill out and mail the attached coupon. There's no obligation, of course, so mail the coupon today.

"Consult your Insurance Agent or Broker



as you would your Doctor or Lawyer"

Fill Out and Mail This Coupon

UNITED STATES FIDELITY & GUARANTY CO.
133 E. REDWOOD STREET
BALTIMORE 3, MD.

I would like a complimentary copy of your

Personal Insurance Audit Book
 Graphic Insurance Audit Book

Name

Address

City State

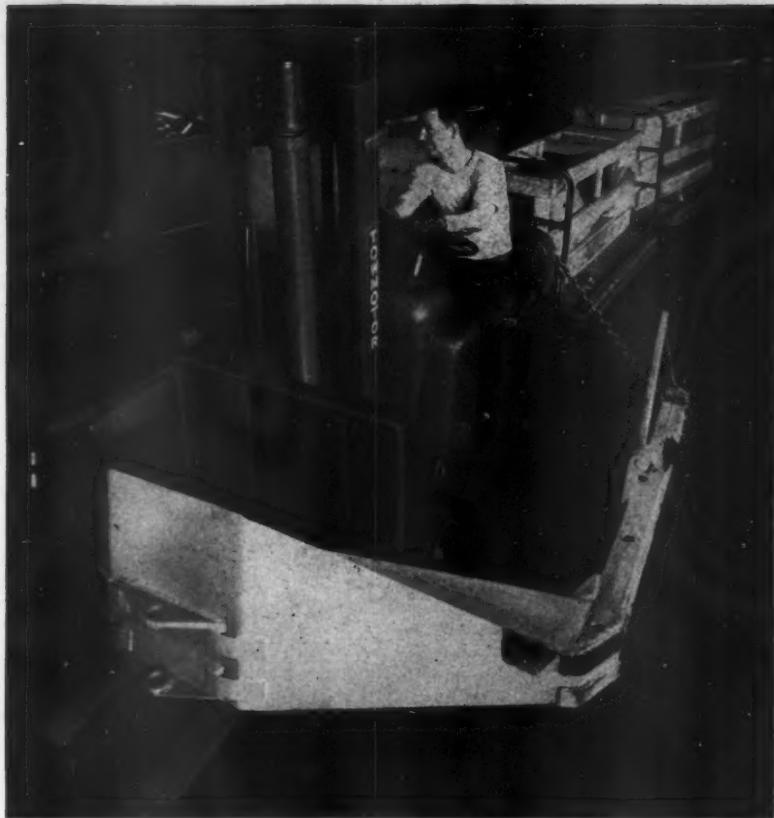
U. S. F. & G.

UNITED STATES FIDELITY & GUARANTY CO.

HOME OFFICE: BALTIMORE 3, MD.

affiliates

FIDELITY & GUARANTY FIRE CORP., BALTIMORE
FIDELITY INSURANCE CO. OF CANADA, TORONTO



Handling is **HEAVY** at the Crossroads

1900 TONS of LCL freight, ranging from cartons of candy to bulky tombstones, shoot through the Galewood, Illinois, transfer station of The Chicago, Milwaukee, St. Paul and Pacific Railroad Company every 24 hours. Unloading, classifying, checking and reloading an enormous variety of freight in time to meet scheduled train movements calls for fast, accurate handling . . . the kind that a Towmotor Fork Lift Truck can provide.

Used chiefly to unload and load boxcars, Towmotors also serve as "trouble-shooters" to daily expedite hundreds of other difficult handling operations. Whether it's a load of fragile china or an 1800 lb. road grader yoke, Towmotor handles it quickly, easily and safely, reduces handling time and labor as much as 75%.

often triples boxcar capacity through high stacking of cumbersome loads.

Regardless of the type of product you make, candy or tombstones, china or road grader yokes, a Towmotor Fork Lift Truck can increase your production by means of fast and efficient handling in all phases of manufacturing and distribution. What Towmotor has done for The Milwaukee Road, Towmotor can do for you. Send for a copy of the Towmotor Materials Handling ANALYSIS GUIDE. Towmotor Corporation, 1221 E. 152nd Street, Cleveland 10, Ohio.

TAKE IT UP WITH
TOWMOTOR
THE ONE-MAN-GANG

moves Westinghouse now has in mind to finance a \$132,000,000 postwar plant-expansion plan and strengthen its working capital position. Once market conditions improve, it intends to sell 1,647,037 shares of new common and \$50,000,000 of new preferred.

• **Standby Agreements**—There has been a similar 1946 scurry on the part of many companies to protect themselves against future possible need of substantial bank credit (BW—Nov. 9 '46, p74). This is evidenced in the sharp uptrend in "revolving" or "standby" bank credit agreements arranged in recent months.

"Acc-in-the-hole" agreements of this type have been effected lately by such companies as R. H. Macy, Schenley Distillers, Standard Oil of California, Standard of Indiana, Richfield Oil, and Goodyear Tire & Rubber, to mention but a few, in amounts ranging from \$20,000,000 to \$125,000,000.

CASH FOR CHRISTMAS

Christmas Clubs in banks throughout the country will set a new record this year with distribution of \$635,000,000 to members, to commence Nov. 25. This represents a 15.7% increase over 1945 and constitutes the largest annual payment in the history of the 36-year-old savings plan.

A concomitant increase of 760,000 members has brought total membership to 8,360,000. Average payment per member will be \$76 for the entire country.

Leading the 5,000 participating banks in disbursements will be San Francisco's Bank of America N.T.&S.A. with \$12,500,000.

In addition to Christmas Club payments, \$124,557,464 will be paid to depositors by other Christmas savings funds in mutual savings banks.

P. S.

The successful sale in late August, just before stocks broke badly, of a \$20,000,000 Commonwealth of Australia re-funding bond issue (BW—Sep. 7 '46, p76) appears to have encouraged other foreign governments to consider similar dollar bond offerings. Kuhn, Loeb & Co. is expected to offer a \$50,000,000 Netherlands issue just as soon as market conditions permit. Belgium also is reported to have been discussing the sale of \$100,000,000 of dollar bonds.

Wall Street hears that four large airlines are seeking substantial loans in order to augment cash resources now being depleted by large payments for new equipment and by today's sharply higher operating costs (BW—Oct. 26 '46, p66). Three are said to be discussing the matter with their banks. One is reportedly considering asking for a Reconstruction Finance Corp. advance.

EVERY business is a chessboard business



Careful there, Mr. Businessman . . . you're playing for profits. And the moves your product makes from planning to selling are all important.

Better check into the forms responsible for these moves . . . the routine orders and records that guide such business functions as purchasing, receiving, production, inspection, warehousing, accounting, selling, and shipping. And if there's the slightest doubt as to the efficiency of your present forms, you'll want to call in your UARCO representative. Thousands of businesses, large and small, have done this—and found it to be one of their smartest business moves.

For fifty years UARCO has been streamlining business forms to meet the specific

needs of thousands of diverse businesses. Your UARCO representative can show you how these forms have brought new speed, accuracy, and efficiency to routine operations . . . and impressive new savings to business budgets. Chances are, UARCO forms can do the same for your business. So call or write today. UARCO INCORPORATED, Chicago, Cleveland, Oakland. *Offices in All Principal Cities.*

For Instance . . .

UARCO Multi-Fold Continuous Forms permit typists and business machine operators to use their time more productively. The shuffling and arrangement of carbons is eliminated. Forms feed steadily through machine and up to 12 clear copies can be made at once.



GRAPHIC REGISTERS
REGISTER FORMS



SINGLE SET
FORMS



BUSINESS FORMS



CONTINUOUS-STRIP FORMS
FOR TYPEWRITTEN AND BUSINESS MACHINE RECORDS



- ★ lift heavy loads
- ★ move machinery
- ★ bend rods
- ★ press bushings
- ★ have many other uses

If you are engaged in industry—you'll find many uses for Hein-Werner Hydraulic Jacks. These super-powerful, easy-operating, absolutely dependable jacks are versatile performers.... Made in models of 3, 5, 8, 12, 20, 30, and 50 tons capacity. For details, consult your industrial supply distributor, or write us.

HEIN-WERNER MOTOR PARTS CORP.
Waukesha, Wisconsin



"LIQUIDS WORTH STORING ARE WORTH MEASURING"

THE LIQUIDOMETER CORP.
3812 SKILLMAN AVE., LONG ISLAND CITY, N.Y.

LABOR

Simplifying Wage Adjustments

Management studies programs for more efficient handling of fluctuating pay needs. Oil companies use straight bonus, some other firms prefer plans geared to cost-of-living indexes.

Management is giving close attention to cost-of-living bonuses and wage adjustments as possible answers to a pair of difficult questions:

How can time-consuming contract reopenings, caused by instability of prices and living costs, be eliminated?

How can business meet employees' needs for pay adjustments now without saddling itself contractually with inflated wage rates which will no longer be needed to balance inflated living costs if prices decline during the coming year?

Management representatives interested in interim or cost-of-living wage adjustments should have as required reading a detailed report recently issued by the U. S. Dept. of Labor's Bureau of Labor Statistics, "Adjustments of Wages to Changes in Cost of Living." Copies are available on request through

the department's Industrial Relations Branch in Washington.

• **Present Patterns**—Equally valuable is a quick review of adjustments which already have been made, principally in the oil industry. So far, excluding adjustments which raise basic wage rates, major programs fall into two general patterns:

(1) Bonuses agreed upon by management and employees, or granted voluntarily by the employer, which do not change basic wage rates or salaries and do not pretend to be statistical revisions to meet changes in living costs.

(2) Adjustments geared directly to changes in living costs and subject to mandatory revision whenever cost indexes fluctuate.

• **Keeping Basic Rates**—Bonuses have proved popular with employers primarily interested in maintaining basic rates

What's Happening to the Cost of Living

	Food	Clothing	Rent	Gas & Electricity	Other Fuels	House Furnishings	Misc.	Total Cost of Living
August, 1939.....	93.5	100.3	104.3	99.0	96.3	100.6	100.4	98.6
January, 1941*.....	97.8	100.7	105.0	97.4	104.2	100.1	101.9	100.8
September.....	110.8	110.8	106.8	96.9	110.5	112.0	105.0	108.1
September, 1942.....	126.6	125.8	108.0	96.7	115.4	123.6	111.4	117.8
September, 1943.....	137.4	132.5	108.0	95.8	119.1	126.3	117.0	123.9
September, 1944.....	137.0	141.4	108.2	95.8	123.4	140.7	122.4	126.5
September, 1945.....	139.4	148.2	108.3	95.2	125.7	146.8	124.6	128.9
October.....	139.3	148.5	108.3	94.8	125.7	146.9	124.7	128.9
November.....	140.1	148.7	108.3	94.0	125.8	147.6	124.6	129.3
December.....	141.4	149.4	108.3	94.0	126.1	148.3	124.8	129.9
January, 1946.....	141.0	149.7	108.3	93.8	127.2	148.8	125.4	129.9
February.....	139.6	150.5	108.3	93.8	127.8	149.7	125.6	129.6
March.....	140.1	153.1	108.4	92.9	127.7	150.2	125.9	130.2
April.....	141.7	154.5	108.4	92.6	127.8	152.0	126.7	131.1
May.....	142.6	155.7	108.4	92.2	127.8	153.7	127.2	131.7
June.....	145.6	157.2	108.5	92.1	128.4	156.1	127.9	133.3
July.....	165.7	158.7	108.7	92.1	133.8	157.9	128.2	141.2
August.....	171.2	161.2	108.7	91.8	135.0	160.0	129.8	144.1
September.....	174.1	165.9	108.8	91.7	136.5	165.6	129.9	145.9

* Base month of NWLB's "Little Steel" formula.
Data: U. S. Bureau of Labor Statistics 1935-39 = 100.

One change has been made in the cost of living table. From now on, indexes of the cost of gas and electricity will be presented separately from those on other fuels and ice. It was felt that the old series—fuel, electricity, and ice—which showed a rising trend, did not do justice to the gas and electricity industry, whose product is the only major item in the Bureau of Labor Statistics index that has shown a consistent downturn.



Painting by Paul Sample—"Copra Workers, Luzon"

Dollars for Coconuts, in the Philippines

PHILIPPINE COPRA—dried coconut meat—is the source of coconut oil, one of the world's most versatile commodities. Its principal use is in soap-making and the by-product, glycerine.

Before the war, the Philippines were the world's largest exporters of coconut products. The coconut industry has been one of the first to recover after the liberation. Other export products beginning to move in quantity include Manila hemp, manganese and chrome ore. It will take some time to restore the flow of exports such as sugar, gold, tobacco, hats, pearl buttons, cabinet woods, and embroidery.

Foreign trade of the Philippines increased about fivefold during the forty years of American sovereignty. By the end of the year our exports to the Philippines are expected to reach substantially higher levels.

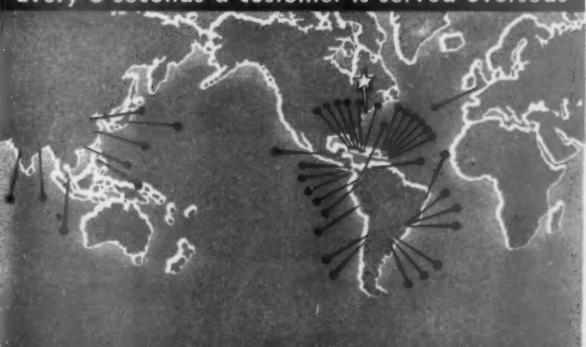
The only American Bank in the Philippines, the Manila Branch of the National City Bank is a complete and long-established unit which exporters and importers use to build foreign trade and business men generally utilize for all types of financial transactions in the Islands.



ACTIVE OVERSEAS BRANCHES

ARGENTINA	CHILE	MEXICO
Buenos Aires	Santiago	Mexico City
Florés	Valparaíso	
Puerto Once		
Rosario		
BRAZIL	CUBA	PERU
Rio de Janeiro	Havana	Lima
Pernambuco	Cochin	
Santos	Colonia	
SSO Ponto	La Llorona	
CANAL ZONE	Calderón	
Balboa	Condénes	
Cristóbal	Manzanillo	
CHINA	Meléndez	
Shanghai	Santiago	
Thessien		
HONG KONG	ENGLAND	REP. OF PANAMA
COLOMBIA	London	Panama
Bogotá	117, Old Broad St	
Barranquilla	11, Waterloo Place	
Medellín		
	INDIA	SINGAPORE
	Bombay	Brunei
	Calcutta	
	JAPAN	URUGUAY
	Tokio (Umeda)	Montevideo
		VENEZUELA
		Caracas

Every 3 seconds a customer is served overseas



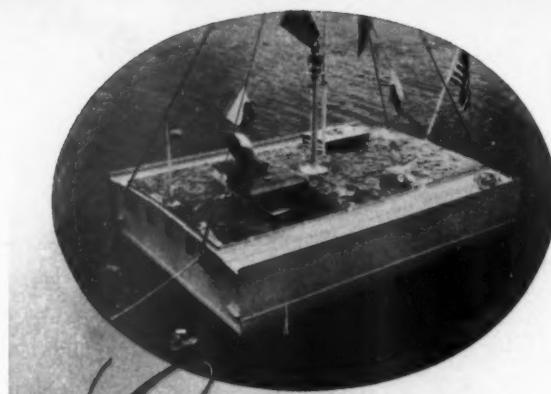
THE NATIONAL CITY BANK OF NEW YORK

Head Office: 55 Wall St., New York • 66 Branches in Greater New York

Write for color-illustrated booklet describing "Overseas Banking Service"

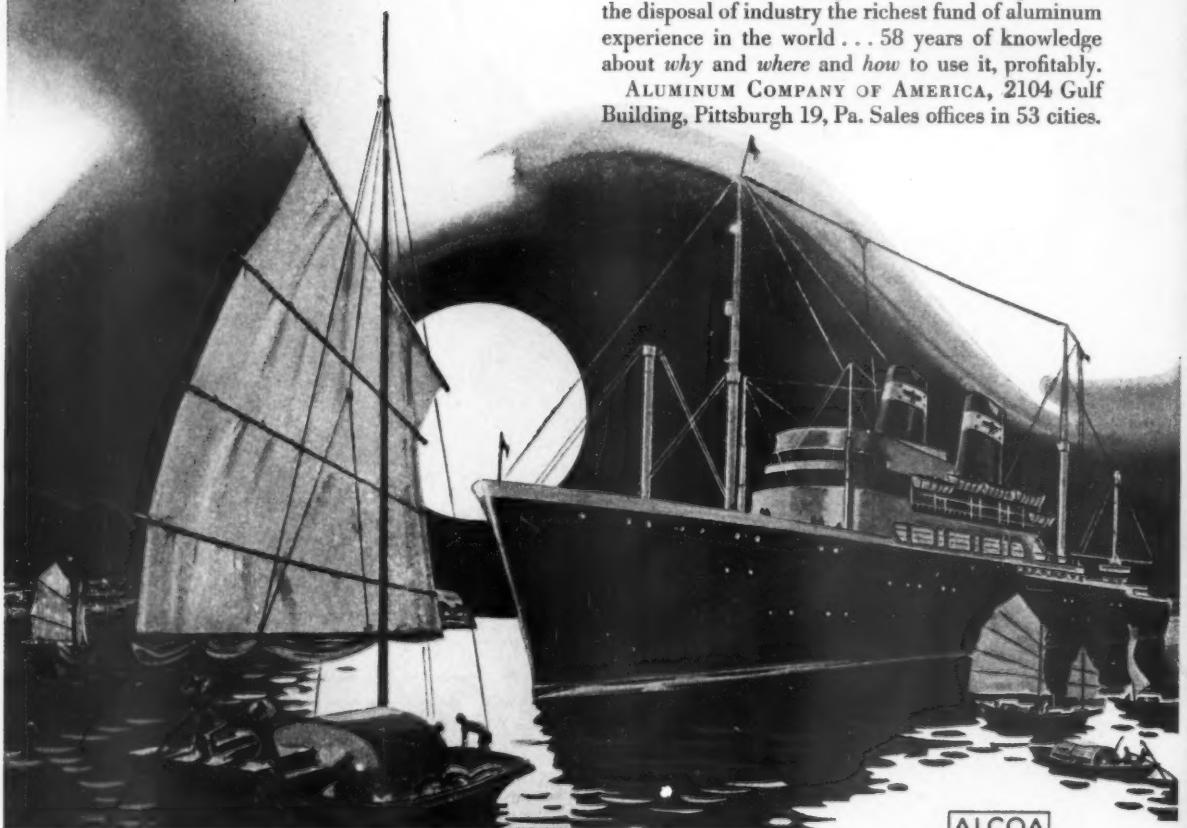
First in World Wide Banking

Member Federal Deposit Insurance Corporation



Cinderella

TAKES A
CHINESE HONEYMOON



The Cinderella of Chesapeake Bay is a queer looking craft. She has no bow, no stern, no engine, no crew. Never weighs anchor to make a voyage. But she *has* a purpose, and has served it well.

Largely because of her, a new fleet of ocean-going passenger ships will have superstructures built of **aluminum**. That was never done before. It reduces weight at the most important place—"topside".

This is a dream come true for Alcoa engineers. Eleven years ago they built this odd-shaped aluminum test hull and anchored it in Chesapeake Bay. Together with marine engineers and naval architects, they watched to see the effect salt water had on aluminum; whether it would prove seaworthy. It did!

But there were other problems—for instance, stresses topside, set up by the weaving and pounding that a ship takes at sea. By building and testing a model, Alcoa engineers found that the use of aluminum in the superstructure greatly reduced these stresses. They likewise conferred on plans and recommended materials.

So the ships were built. They are in the water now, being outfitted for their maiden voyages to China... thanks to Cinderella and the "imagineers" who dreamed of aluminum ships and then engineered them into the water.

This is another example of how Alcoa places at the disposal of industry the richest fund of aluminum experience in the world... 58 years of knowledge about *why* and *where* and *how* to use it, profitably.

ALUMINUM COMPANY OF AMERICA, 2104 Gulf Building, Pittsburgh 19, Pa. Sales offices in 53 cities.

ALCOA FIRST IN ALUMINUM



as the
defini
becom
ture i
they
and 1
be dis
nomic
worke
terms
sate fo
• Bon
are in
Star
ployed
week's
to cov
Relati
ceived
I have
of gen
accord
compe
gently
salary
defini
the co

Hu
"allow
emplo
four
the e
comp
prob
balan

Co
ployed
cemb
ber c
a sim
to cov

Phi
two v
Bar
mont
ber, a
Sta
ceive
a ma
again
• Pri
plans
the p
store.
BLS

Ch
sente
Guild
of ba
BLS
but n
given
week
leased
provi
tions;
the i
wage
with
ultim
princ

BUSIN

as they are. Even though paid on a definite schedule, such payments do not become a part of the basic wage structure if the employer makes clear that they are being given to bring wages and living costs into balance and will be discontinued when (1) changed economic conditions ease the pinch on workers, or when (2) rewritten contract terms formally raise wages to compensate for increased living costs.

• **Bonus Plans**—Typical bonus plans are in the oil industry. These include:

Standard Oil of Indiana—Salaried employees and wage earners receive a week's wages, with \$100 as a maximum, to cover the period to Jan. 15, 1947. Relatively small groups which have received general wage increases since July 1 have been excluded. Bonuses, instead of general wage boosts, were ordered, according to the company, because "the company feels that it cannot intelligently determine . . . general wage and salary increases until it can be more definitely established what the level of the cost of living will be."

Humble Oil & Refining—Temporary "allowance" of \$25 a month to 17,000 employees for a period not to exceed four months, begun in October. At the end of that time, employees and company "will confer again on the problem" of keeping the wage-price balance.

Continental Oil—Seven thousand employees will be paid \$50 each in December, to cover November and December cost adjustments, and will receive a similar payment in February, 1947, to cover January and February.

Phillips Petroleum—Employees paid two weeks' basic wages.

Barnsdall Oil—Bonuses of \$25 a month to be paid in November, December, and January.

Stanolind Oil & Gas—Employees receive 10% of basic monthly wages, to a maximum of \$50, on Nov. 15 and again on Dec. 15.

• **Price Index Plans**—Typical of the plans geared directly to living costs are the programs of the Chicago Times and of Gimbel Bros., New York department store. Both tie wages specifically to the BLS consumers' price index.

Chicago Times—Employees, represented by the American Newspaper Guild (C.I.O.), receive a bonus of 1% of base salary for each 1% rise in the BLS index for Chicago living costs, but no more than a 19% bonus will be given. Adjustments will be made one week after each new BLS figure is released. The bonus clause is written to provide for adjustments in both directions; payments are to be reduced if the index declines. Unlike "escalator" wage clauses which fell into disrepute with labor after the last war, because ultimately they called for wage cuts as prices slumped, the Chicago Times

Satisfied Users tell why they like PC GLASS BLOCKS



Architect: Robert Fitch Smith

THOSE are only a few of the statements made by our satisfied customers. There are many additional reasons why it will pay you to bring more cheerful, bright light into your offices and workrooms with PC Glass Blocks.

You, too, can save money by gaining additional working space, using less artificial light, reducing repairs and maintenance costs, when you install a properly engineered PC Glass Block lighting system.

For your guidance, we have recently published a lavishly illustrated book, showing the many and varied uses of PC Glass Blocks in industrial building construction. Engineering

data and specifications are included, as well as the full line of patterns and sizes and a description of the functions of each type of block.

Send for your free copy today. Just mail the convenient coupon and it will be forwarded promptly, without obligation.

Also makers of PC Foamglas.

Pittsburgh Corning Corporation
Room 381, 632 Duquesne Way
Pittsburgh 22, Pa.

Please send along my free copy of your new book on the use of PC Glass Blocks for Commercial and Institutional Buildings. It is understood that I incur no obligation.

Name _____

Address _____

City _____ State _____



GLASS BLOCKS

Distributed by

PITTSBURGH PLATE GLASS COMPANY and by W. P. Fuller & Co. on the Pacific Coast



"Gentlemen, ladies . . . wait until we get the G-E Water Cooler installed—please!"

DON'T BLAME your employees if they're eager to have the G-E Water Cooler installed. A new G-E Water Cooler is a wonderful present from the boss.

This grand morale booster costs so little—an approximate average of 2¢ a day. Little or no worry about repairs either, when you get a G. E. The stainless steel G-E tank protects against rust and corrosion, and the rugged G-E motor is dependable under constant use.

Call your G-E Dealer today. He's listed under "Water Coolers" in the Classified Telephone Directory. He'll supply you with a G-E Water Cooler as soon as he can make delivery. **General Electric Company, Air Conditioning Department, Section 68611, Bloomfield, New Jersey.**

GENERAL ELECTRIC
Water Coolers



clause does not affect base salaries. Declining living costs might wipe out the weekly bonus, but they would not make a wage cut permissible.

Gimbels Bros.—Members of the C.I.O. Retail, Wholesale & Department Store Workers' Union, who recently won a 25¢ hourly wage increase, also agreed with management on a clause which provides for a wage reopening whenever the BLS index for New York shows an average change over a 60-day period of 15% above or below the figure for September, 1946. However, no decrease will be permitted to cut rates below those in effect May 1, 1946, or below those paid by comparable stores in the area.

• **Variant**—A third type of agreement (which directly affects basic rates) has been signed by the Amalgamated Clothing Workers of America (C.I.O.) and the Clothing Manufacturers of the U. S., covering 150,000 workers in men's and boys' clothing plants. The A.C.W.A. plan calls for a 12½¢ hourly cost-of-living wage adjustment, about \$5 a week, computed on the basis of a rise in living costs amounting to 10% or 11% since last December. At that time the two parties agreed on a 15% wage increase.

FORD STRIKE UNLIKELY

Likelihood of a strike at the Ford Motor Co. dwindled almost to the vanishing point this week after the international board of the United Auto Workers (C.I.O.) knocked the props from under the Ford local's left-wing leaders.

The strike threat had hinged on two points: company disciplinary action against 18 workers involved in a wildcat walkout, and a union demand that the company negotiate over the alleged health hazards which had caused that walkout (BW—Nov. 9 '46, p90).

Last week end the international board withdrew the first of these as a ground for the strike threat, thus tacitly backing the company's position that the disciplinary actions were sanctioned by the "company rights clause" in the Ford contract (BW—Mar. 2 '46, p96). This all but eliminated any possibility of a walkout, since the company has already indicated that it is willing to negotiate on the second point.

The international board's decision is considered a definite victory for Walter Reuther, union president, in his running battle with the pro-Communists in U.A.W. The recent tactics of this faction have been to favor general unsettlement in the industry, and a Ford walkout would have furthered this aim.

But when the showdown came last week end, the board backed Reuther, even though his followers have been a board minority on most issues.

De
the
make
the
part
re
ease,
ause
ning
York
day
fig
no
rates
o, or
tores

ment
has
oth-
and
the
s in
The
curly
about
of a
0%
that
5%

Ford
van-
inter-
Auto
rops
wing

two
ction
wild-
that
eged
that

board
ound
back-
the
d by
Ford
is all
of a
ready
rotate

on is
Walter
mining
s in
s fac-
Ford
aim.
the last
ther,
een a



What! Build furniture with Rayon?

THAT THEY DO, INDEED! New, attractive, reasonably priced and well-nigh indestructible coffee tables, radio cabinets, trays, baby carriages now contain up to 65% rayon intimately blended with plastic resins.

Engineers of American Viscose, working with plastics makers and laminators, have adapted rayon with outstanding success to these good-looking, serviceable things...known technically as rayon-laminate plastics. They have built tougher gears, stouter plane propellers, other useful devices, by this same method.

Not just any rayon is used. But the proper rayon. For rayon being man-made *can be engineered* to do certain jobs better and make specific articles more useful. Thus, one kind of rayon fiber blended with a given resin yields greater strength, vibration resistance. Another gives attractive new colors, textures.

The rayon-laminated plastics field is comparatively new. But a familiar pattern is already emerging...whereby rayon is improving old products...making possible new ones...bringing more and better things to all of us.

AMERICAN VISCOSE CORPORATION

America's largest producer of rayon

Offices: 350 Fifth Avenue, New York 1, New York; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.;
Providence, R. I.; Washington, D. C.; Wilmington, Del.

Reg. U. S. Pat. Off.

*A better way to
buy Rayon Fabrics*



This identification is awarded only to fabrics containing CROWN® rayon, after they have passed the CROWN Tests for serviceability.

Unions in Nationalized Industries

The immediate importance to industry and to the nation's coal users of the negotiations in progress this week between the United Mine Workers of America and the government (page 5) has tended to overshadow a precedent they set which may have considerable long-run significance.

• **Nationalization Here**—A government seizure of a plant, a company, or an industry wracked by labor trouble has, over the last four years, become unremarkable. Nor has it been rare for the government to establish, through one mechanism or another, wage rates and conditions of employment for the properties it has taken over. But now in coal for the first time the government is repeating that process. Like any employer in the land, the government, having recognized a union, negotiated, and entered into a contract with it, is now, under the force of a strike threat, writing in effect a new contract. For the practical purposes of John L. Lewis, the coal mines have been nationalized—and they can stay nationalized.

But Lewis, with all the other labor leaders, knows that permanent nationalization would impose different rules on union activities.

• **One Good Reason**—For 26 years—since the "Plumb Plan" for government ownership of the railroads came to naught despite wide labor support—serious demands for nationalizing an industry have not emanated from union ranks. Early this spring, however, some of the left-wing C.I.O. unions began talking nationalization

again (BW-Mar. 2 '46, p86). Frequently, agitation begun by labor left-wingers stirs echoes in more conservative union circles, but that has not happened in this instance for one very good reason.

The leaders of American unions have not been able to imagine how they could operate under any system of union regulation which would necessarily be imposed on a labor organization functioning in a government-owned industry. The unions in the Post Office and in other fields of the federal civil service do not function as unions in the sense that is familiar in private industry.

American labor leaders, in short, have not demanded the nationalization of industry because they felt that nationalization would deprive their organizations of freedom.

• **Subject to Change**—Labor's indifference or hostility to nationalization rests, therefore, not on principle but on practical considerations. Should a formula be devised which would provide nationalization and at the same time protect labor's freedom of action, union sentiment about nationalization would be subject to sharp change.

The perfection of such a formula—the implications of which may be profound for American business—is currently being attempted in Britain.

Because of this fact, the following report goes into detail on how labor relations in the coal industry—the guinea pig of the British nationalization program—will be handled.

LONDON—The question, whether a union can maintain its freedom of action under nationalization, will be answered initially and perhaps decisively in coal, first of Britain's basic industries to come under public ownership. Negotiations between the National Coal Board and the National Union of Mineworkers, now under way, will determine what their relationship is to be when the board is vested with control of the industry early in 1947.

• **To Retain Strike Weapon**—Although the discussions are only in a preliminary stage, and the final formulas may not emerge for several years, it is already clear that the N.U.M. will in no sense be a department of the government and that any analogy between the present role of the Russian trade unions and the future position of the N.U.M. is entirely wide of the mark. It is equally clear, on the other hand, that the workers will not run the coal industry, as syndicalists and guild socialists in Britain contemplated a generation ago.

Under nationalization, British style, a public board will operate the coal industry. Theoretically, the coal board will be a model employer, but its fun-



With nationalization of coal of vital importance to British labor, Lord Citrine has relinquished the general secretaryship of the Trades Union Congress for membership on the National Coal Board, which will run the mines and deal with union labor.

damental relationship with the mine workers will be that of a buyer of labor while the N.U.M. remains a seller of manpower. For its part, the union will continue to play its traditional role vis-a-vis the employer and maintain its traditional weapons, including the strike.

Two of the nine members of the board are "labor" members (Lord Citrine, formerly general-secretary of the Trades Union Congress, and Ebby Edwards, a recent N.U.M. president) whose function is to understand if not to express the point of view of the workers, but they do not represent the N.U.M. or the Trades Union Congress as such.

• **Vague Definition**—It was only under N.U.M. pressure (exerted in the House of Commons by members from mining districts) that statutory definition of the board's relation with the union was included in the bill, and the clause finally inserted in the Coal Industry Nationalization Act left many questions unanswered.

It merely obliges the board to consult with organizations representing "substantial proportions of the persons in the employment of the board" with a

"I'M A FARMER IN NORTHERN ILLINOIS"

"I've farmed in Northern Illinois for about 50 years. The land is rich and it's a help to me to be near the biggest food-processing center in the country. The corn and milk I produce are only a few hours away from the large distributing center in Chicago. My family has been farming around here for a long time and we've seen this land grow more productive every year. I've brought up my children and educated them here in Northern Illinois. They're staying to work and live here, too."



This man is typical of the progressive farmers of Northern Illinois. There is an abundance of good roads and railroads to get their products to all of the country's large marketing centers. This same transportation network, plus the area's diversified industrial facilities, combine to provide the finest machinery and equipment with which to work.

In Northern Illinois, electricity helps make farms great producers. These Companies are continuing a long-standing program of rural line extensions which today makes this service available to over 93% of the farms in the territory. The towns serving the needs of these progressive farmers are well-developed communities with good stores and shops, sound banks, fine schools.

These companies have a stake in Chicago and Northern Illinois and confidence in its future. The theme of this advertisement is similar to one of a series we are publishing nation-wide to point out the many industrial advantages available here.

If you know of any business seeking a new location, please inform us so that in cooperation with other agencies interested in the progress of Northern Illinois, we can furnish complete factual information on the area.

Industries locating in this area have these outstanding advantages:
Railroad Center of the United States • World Airport • Inland Waterways • Geographical Center of U. S. Population • Great Financial Center • The "Great Central Market" • Food Producing and Processing Center • Leader in Iron and Steel Manufacturing • Good Labor Relations Record • 2,500,000 Kilowatts of Power • Tremendous Coal Reserves • Good Government • Good Living • Good Services for Tax Dollars
Send for free booklets containing useful information on these advantages.



119 industries
selected Chicago and
Northern Illinois for estab-
lishing new plants during
the first 9 months of 1946.

This is one of a series of advertisements on the industrial, agricultural and residential advantages of Chicago and Northern Illinois. For more information, communicate with the

TERRITORIAL INFORMATION DEPARTMENT

Marquette Building—140 South Dearborn Street, Chicago 3, Illinois—Phone RANDolph 1617

COMMONWEALTH EDISON COMPANY • PUBLIC SERVICE COMPANY OF NORTHERN ILLINOIS
WESTERN UNITED GAS AND ELECTRIC COMPANY • ILLINOIS NORTHERN UTILITIES COMPANY
Visit the "Victory International Live Stock Exposition"—Nov. 30—Dec. 7



*"I see a market
of 40 million people"*
...with Santa Clara County at its hub"

It doesn't take a crystal gazer to predict the Western Market of the future. With the sharp population growth of the past few years, and the present accelerated pace, 40 million consumers is not too far distant.

Of major current interest is the opportunity to get in on the ground floor of this bonanza market. Choice industrial locations are still available in Santa Clara County. And a location here is strategically situated at the hub of this vast area—at the population center of the Pacific Coast.

From a production standpoint Santa Clara County has the raw materials and facilities to out-produce most areas. From a distribution standpoint it can outsell and outserve factories in less centrally located areas.

WRITE FOR THIS FREE BOOK

If you'd like to know more about this area—and it's a fascinating story—write for "The New Pacific Coast." 36 pages of easily read facts—and free, if you write on your business letterhead.



DEPT. W — SAN JOSE CHAMBER OF COMMERCE • SAN JOSE 23, CALIF.



SANTA CLARA COUNTY *California*

The population center of the Pacific Coast

view to establishing joint machinery for (1) the settlement of "terms and conditions of employment, with provision for reference to arbitration in the fault of such settlement," and (2) consultation on "questions relating to safety, health, and welfare" and "other matters of mutual interest" to the board and the mine workers.

• **Conciliation Levels**—The pattern, if not the details, of board-union relations has become relatively clear, however, as to both conciliation and consultation. In broad outline it means that on each of these subjects, representatives of the board and of the union will be able to meet at four levels—national headquarters, divisions (approximating the regional bodies of the coal board), areas, and pits.

Some of the conciliation machinery already in existence, based on the recommendation of the Greene committee report in 1943, provides not only for a joint national negotiating committee and district conciliation boards but also for a National Reference Tribunal whose findings would be binding. This presumably would meet the act's provision for arbitration where negotiation fails.

• **Variation in Wages**—To the conciliation machinery would fall all matters relating to wages and to working conditions which are normally the subject of trade union negotiations. Perhaps its biggest job will be revising the wage structure of the industry. Wages were negotiated on a national basis during the war, but there are still many variations from district to district and pit to pit, with these differentials based on output.

The consultative machinery will be concerned, at its various levels, with such matters as safety and health, welfare, and production. At the pit level, where consultation will be most difficult but where it will also be potentially the most fruitful, the existing pit production committees will be merged with the new bodies, which will tackle their diverse duties through various subcommittees.

Although the mine manager, representing the board, will continue to have full administrative responsibility, both board and N.U.M. leaders believe that a genuine field of cooperation can be worked out between mine workers and managers by giving the men access to all relevant information—plan of the pit, the manager's immediate and long-term programs for the mine, output figures, production methods, balance sheets, and so on.

• **Big Job for N.U.M.**—By American standards, union-management cooperation to increase efficiency has never been very fruitful in Britain, and for this the unions must share part of the blame. In the postoffice, to take a public institu-

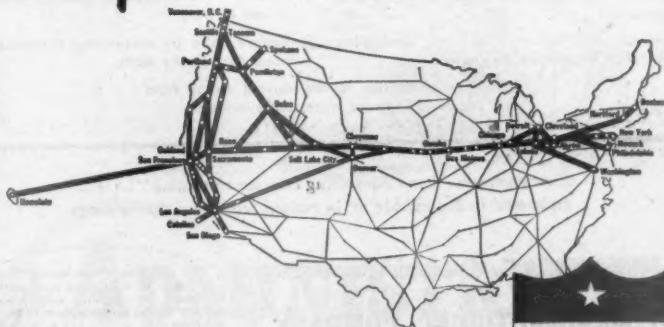


Fifty Millions for New Wings!

United's famous Main Line Airway is handling the greatest volume of traffic in history. To meet this demand and to bring air travel to still more people, United operates a growing and versatile fleet of modern transports—twin-engined Mainliner 180's for intercity frequency and convenience—four-engined Mainliner 230's for medium and long range flights. To these will be added great new 300-mile-an-hour, four-engined Mainliner 300's and 340's and the fast twin-engined Mainliner 303's. United Air Lines is spending \$50,000,000 for the latest and finest flying equipment.



United Air Lines holds the Award of Honor, presented by the National Safety Council, for having flown more than a billion and a half passenger miles without a fatal accident.



THE MAIN LINE AIRWAY
Passengers • Mail • Express • Freight

AIR MAIL NOW 5¢



FOR BETTER PERFORMANCE

*Fit the Coupling
to the Job...*



Too often Flexible Couplings are selected without consideration of the EXTRA services which they can render; such as the absorption of momentary impulses for smoother power delivery, elimination of shaft alignment difficulties, noise reduction, protection to equipment, etc. No single coupling can provide these EXTRAS over a wide range of power. That is the reason LORD FLEXIBLE COUPLINGS are available in many sizes up to and including 1-HP.—so you may fit your requirements exactly and obtain *all* of the advantages available from engineered coupling design.

By permanently bonding rubber (or neoprene to resist oil) between steel hubs in such a manner as to stress the rubber section in shear, LORD has obtained an unusual amount of torsional resiliency for shock absorption. Since all movement is accommodated within the rubber, there is no frictional wear or chafing to shorten coupling life. For the best in advanced coupling design, use LORD FLEXIBLE COUPLINGS.

*Write for Bulletin 200-A which describes
LORD FLEXIBLE COUPLINGS in greater detail.*

What Lord Flexible Couplings Will Do for You

- 1 Absorb torque to approximately 20°, between motor and driven unit.
- 2 Accommodate angular or parallel misalignment.
- 3 Prolong the life of bearings, on motor and machine.
- 4 Reduce installation costs, by eliminating necessity for precise alignment.
- 5 Absorb the strain of shock loads—starting, stopping, stalling—throughout the assembly.
- 6 Absorb the force of end and radial thrusts.
- 7 Provide for even flow of power from motor to unit in work.
- 8 Reduce noise by eliminating transmission of noise through the shaft.
- 9 Give protection to the driving motor from suddenly imposed excessive overload.

Every genuine Lord Mounting carries the name "LORD" embossed in the rubber or in raised letters on the forgings.

IT TAKES BONDED RUBBER *In Shear* TO ABSORB VIBRATION

LORD MANUFACTURING COMPANY
ERIE, PENNSYLVANIA

Originators of Shear Type Bonded Rubber Mountings

SALES REPRESENTATIVES
NEW YORK - - - 280 MADISON AVE.
CHICAGO - - - 520 N. MICHIGAN AVE.
DETROIT - - - 7310 WOODWARD AVE.
BURLIN. - - - 1000 BURLIN. AVE.
WASHINGTON - - - 14TH & G STREETS, N. W.
CANADIAN REPRESENTATIVES
RAILWAY & POWER ENGINEERING CORP., LTD.
TORONTO, CANADA

tion for example, the union has long claimed that it should have a chance to participate but so far has failed to make any concrete constructive proposals. A similar situation has existed in the London Passenger Transport Board.

There is little evidence that N.U.M. has done necessary spadework to make participation mean something in coal. One of the biggest jobs, on which only beginning has been made, is to convince rank-and-file members that they have a personal stake in efficiency of industry.

N.U.M., however, can be expected to get down to this task since it sees a chance through consultative machinery of increasing its influence in industry. • Five-Day Week—But the real test of N.U.M. strength in the nationalized set-up will come on the issues now outstanding between the board and the union. These include (1) demands for improved conditions laid down in the Miners' Charter of January, 1946; (2) higher wages; (3) the closed shop.

In the case of the charter demands, the real fight will be over the five-day week—whether the miners should be granted this as a production incentive or whether it will be a condition of such an increase. Present indications are that the board will take the latter view.

• Wage Demands Coming—The charter makes no claim for increased wages, demanding merely that average wage standards should not fall below those of any other British industry, but when the 1944 wage agreement runs out in mid-1947 and the N.U.M. is free to press for a general increase, the board—and the government—may be faced with a major decision, particularly if the concession means a boost in coal prices.

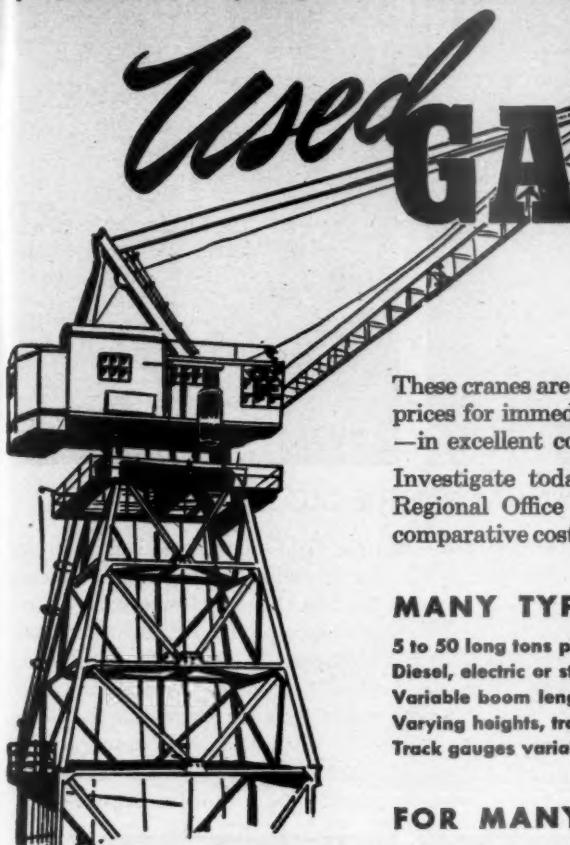
A crisis over the closed-shop issue might easily antedate settlement of the other questions, since the N.U.M. will probably push this one to a conclusion within the next few months. The coal act is so vague on the subject that the board has had to assure N.U.M. that it will not recognize break-away unions whose purpose is to suggest that, as new unions, they are not bound by former agreements. But this does not mean that the board will agree to the closed shop as the London Passenger Transport Board recently did (BW—Oct. 12 '46, p98) even though N.U.M. membership already includes about 90% of the workers in the coal industry and current negotiations may bring in most of the rest. Nor will the Labor government necessarily risk offending its middle-of-the-road supporters by backing the union against the board.

The government, of course, is not merely involved in these questions in a general way, as any government would be, but directly through the Minister of Fuel & Power who is authorized by the coal act to intervene with the board in matters affecting the national inter-

long
ce to
make
s. A
Lon
J.M.
make
coal.
only
since
have a
industry.
ed to
ees a
achinery
industry.
est of
l set-
out-
the
s for
the
; (2)
ands,
e-day
l be
ive or
h an
t the
char-
ages,
wage
those
when
it in
e to
board
placed
of the
ervices.
issue
of the
will
ension
coal
at the
at it
tions
new
former
mean
closed
trans-
ct.12
ember-
f the
urrent
f the
ment
le-of-
the
not
in a
ould
ister
ed by
board
inter-
1946

\$7,000 to \$24,000 F.O.B. LOCATION • IMMEDIATE DELIVERY

Used GANTRIES



These cranes are sold at less than one-half today's prices for immediate delivery. They are rugged—in excellent condition—serviceable for years.

Investigate today! Write your nearest WAA Regional Office for complete information and comparative costs. All items subject to prior sale.

MANY TYPES:

5 to 50 long tons pick-up capacity
Diesel, electric or steam power.

Variable boom lengths.

Varying heights, track to boom hinge pin, 40 to 70 feet.
Track gauges variable to 32 feet.



FOR MANY USES:

Ship Yards

Heavy Construction

Coal Yards

Dams

Docks

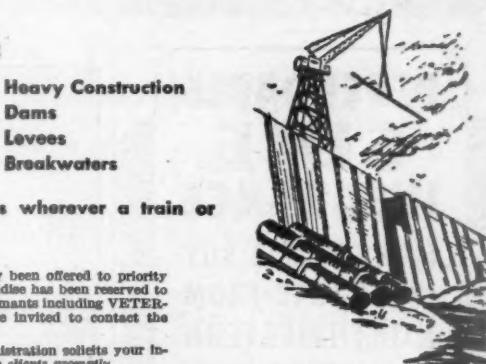
Levees

Sorting Yards

Breakwaters

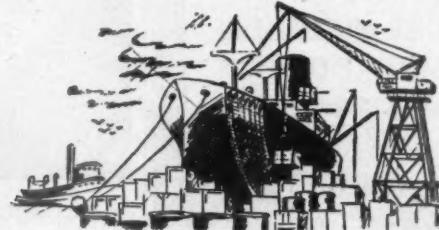
Caissons

All loading and unloading jobs wherever a train or ship can go.



Although this material has previously been offered to priority claimants, 10 per cent of the merchandise has been reserved to fulfill any further needs of priority claimants including VETERANS OF WORLD WAR II who are invited to contact the Regional Office serving their area.

Exporters: The War Assets Administration solicits your inquiries. Communicate with your foreign clients promptly.



WAR ASSETS ADMINISTRATION

Offices located at: Atlanta • Birmingham
Boston • Charlotte • Chicago • Cincinnati
Cleveland • Dallas • Denver • Detroit • Fort
Worth • Helena • Houston • Jacksonville
Kansas City, Mo. • Little Rock • Los Angeles

GOVERNMENT
OWNED
SURPLUS

Louisville • Minneapolis • Nashville • New
Orleans • New York • Omaha
Philadelphia • Portland, Ore. • Richmond
St. Louis • Salt Lake City • San Antonio
San Francisco • Seattle • Spokane • Tulsa

643-3

Make it a MUST for NEW IDEAS

Latest equipment, materials and practices for generation and use of steam, electric and mechanical power . . . nearly 400 technically-staffed exhibits — interesting demonstrations.



Management of International Exposition Co.

DEPENDABLE FIRE INSURANCE

MORE PEOPLE BUY
INSURANCE FROM
NORTHWESTERN
THAN FROM ANY
OTHER MUTUAL FIRE
INSURANCE COMPANY
MAKE IT YOUR CHOICE, TOO

NORTHWESTERN
MUTUAL FIRE ASSOCIATION

ASK YOUR LOCAL AGENT
FOR NORTHWESTERN PROTECTION

or for further information write home office,
Northwestern Mutual Insurance Building,
Seattle 1, Washington.

STRENGTH **STABILITY**



ANOTHER MURRAY XMAS FOR THE C.I.O.?

Philip Murray (above, left) plans to open the C.I.O. convention in Atlantic City next week without announcing whether he will accept the office of president for another year. The two men with the best chances of succeeding Murray if he refuses to be drafted are Sherman Dalrymple (above, right), former head of the rubber workers, and Allan Haywood (below, left), director of organization for the C.I.O. Both are counted on to follow the orders which Murray would issue from his Pittsburgh headquarters as president of the steelworkers union in the event he gives up the C.I.O. post. James Carey, (below, right), second ranking C.I.O. official as secretary-treasurer, wants Murray to stay and give leadership to the anti-Communist bloc within the organization.



est. Moreover, the government is tied to N.U.M., and N.U.M. to the government, through their affiliations in the Labor Party.

• **Union Has Strength**—Some observers regard this tie as limiting the union's freedom of action. In point of fact, N.U.M. is in a strong position both on the five-day week and increased wages, since the industry's overriding need for manpower might in any case lead the minister as well as the board to agree to

concessions making the industry more attractive.

If a general wage increase meant higher coal prices, a different problem would be raised. This would affect the whole economy and might cause unemployment elsewhere.

Moreover, a strike for higher wages under these circumstances—which, like any other strike, the union remains legally free to call—would be a demand to secure a greater share of the nation's

PERMANENT MAGNETS MAY DO IT BETTER!



Now! we're ready to Demonstrate HYFLUX* Magnetic Recording Tape with full fidelity performance

HYFLUX magnetic recording tape is a new "packaged energy" product of The Indiana Steel Products Company offering for the first time full, rich, high fidelity performance at moderate operational speeds. HYFLUX, the result of over a third of a century of experience in permanent magnet production augmented by independent research of the Battelle Memorial Research Institute, is a paper tape coated with fine high-energy magnetic particles with characteristics comparable to the well-known grades of Alnico. The simplicity of its design, its high fidelity performance, and the low cost materials used in fabrication provide HYFLUX tape with exceptional advantages for modern commercial recording.

* Reg. U. S. Pat. Off.

Although The Indiana Steel Products Company will only produce HYFLUX Tape itself, the importance of developing a soundly engineered recorder for HYFLUX magnetic tape was recognized. The combined work of The Indiana Steel Products Company and the Physics Research Division of the Midwest Research Institute resulted in a single basic mechanism which incorporates outstanding new refinements in recording magnetics, electronics, mechanics, and acoustics. These engineering findings will be available to all recording machine manufacturers who are HYFLUX licensees. Write today for additional information on the technical application of HYFLUX recording tape.

HYFLUX Magnetic Recording Tape Brings These New Advantages to the Field of Sound Recording

- High Fidelity Performance
- Low Operating Cost
- Compact . . . $\frac{1}{2}$ hour recording
on a single 8 MM reel.
- Flexible and Durable in Use
- Permits Precision Editing

★ THE INDIANA STEEL PRODUCTS COMPANY ★

PRODUCERS OF "PACKAGED ENERGY"

6 NORTH MICHIGAN AVENUE • CHICAGO 2, ILL.

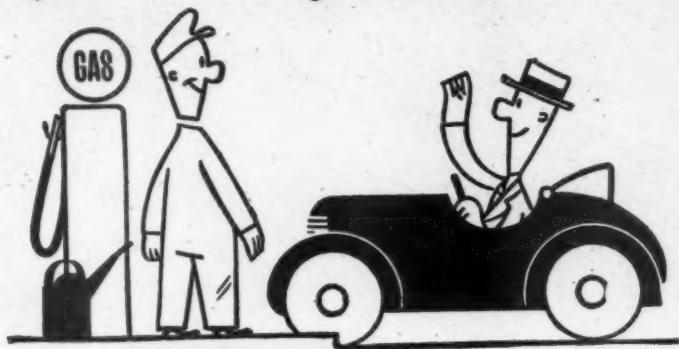


SPECIALISTS IN PERMANENT MAGNETS SINCE 1910

PLANTS { VALPARAISO, INDIANA
 STAMFORD, CONN. (CINAUDAGRAPH DIV.)

© 1946 The Indiana Steel Products Co.

for more MILES per gallon



GET

Pedrick

**"HEAT-SHAPED"
PISTON RINGS**

WHY? Because "Heat-Shaping" gives you your best assurance of more miles per gallon, lower oil and repair bills, greater power and pep, and longer engine life. And only PEDRICK rings are "Heat-Shaped."

WILKENING MANUFACTURING CO., Philadelphia 42,
Pa. In Canada: Wilkening Manufacturing Co.
(Canada) Ltd., Toronto.



wealth than the community, as represented by the coal board and the government, regards as just.

• **Decisive Test?**—N.U.M. insistence on the closed shop, however, might provide a decisive test of union independence of the government. Present indications are that this issue will rouse a bitter national debate and that government support for the closed shop either in nationalized or in privately owned industries might easily lose the Labor Party the next election. If the government decides that the wind is blowing in this direction, it is hardly likely that the N.U.M. would take the risk involved in insisting on its freedom of action.

Since the nationalization of transport, electricity, and steel may not be carried out along precisely the same lines, and each may differ somewhat from the method adopted for coal, the exact pattern of union relations with the various national boards may not be identical with that now being developed in the coal industry. But it seems clear enough that the position will be basically the same and that the unions in the other industries will benefit from the fact that Britain's dependence on coal gives the N.U.M. an opportunity to stake out the ground very largely on its own terms.



LETTING THE CHIPS FALL

Charles Luckman (above), president of Lever Bros., last week spoke pointedly in Chicago to management—but labor took notice. Luckman urged the executives "to stop making noises like a corporation," and to set as objectives higher wages and shorter hours for workers, annual wages, sickness and accident insurance, and comfortable pensions. Result, said Luckman, would be an end to distrust of Big Business, creation of a bigger market.



"IGs" ARE GOOD ON THE ADDING MACHINE!

Industrial Gremlins—"IGs" for short—are good at adding when it comes to costs. They know how to slow down production, lower the quality and "up" the costs that may represent the difference between profit and loss in any plant.

It is the function of Brown ElectroniK instruments, with "Continuous Balance" control, to detect and correct such conditions so that processing is held to uniform standards, costs are reduced and profits increased. And leading manufacturers in a wide variety of

industries depend upon Brown instruments to thwart these costly "IG" saboteurs.

Whether yours is a "small business" or the largest in your industry, Brown engineers have a wealth of factual data and experience that can be helpful to you. You are cordially invited to call or write our nearest office for information.

THE BROWN INSTRUMENT COMPANY,
a division of Minneapolis-Honeywell Regulator Company, 4525 Wayne Avenue, Philadelphia 44, Pa. Offices in all principal cities.

FOR YOU . . . If you are not receiving "INSTRUMENTATION," the Brown quarterly magazine presenting case histories of control problems now being solved for industry, have your secretary send for it. No obligation.

INSTRUMENTS BY **BROWN** CONTROLS BY

MINNEAPOLIS
Honeywell



IMPORTERS OF
QUALITY COFFEES
for
AMERICAN ROASTERS

•
AMERICAN MERCHANDISE
EXPORTED TO
COFFEE-PRODUCING
COUNTRIES

OTIS, McALLISTER & CO.

World Traders Since 1892
310 Sansome St., San Francisco
Canal Building, New Orleans 12
LOS ANGELES CHICAGO NEW YORK

*Save money, time
and manpower with*

Tal's Prestal Pipe Bender

Bends
iron pipe,
steel pipe
conduit on
the job

in one single
simple easy
operation

Plumbing, heating and
electrical installations
and maintenance
work goes faster,
easier, and is less
costly when a
Tal's Prestal Bender
is on the job.
This do-all, portable
machine saves valuable
time, eliminates the
use of fittings,
and reduces welds
up to 80%. It
bends all iron and
steel pipe and conduit from
 $\frac{3}{8}$ " to 3"—makes any degree
bend in one easy operation
without moving the pipe, without
without heating or filling. Does a
workmanlike job—no kinks or wrinkles.
No wonder thousands of these
efficient machines are in successful
use throughout industry, and by leading
contractors. Write for bulletin.

TAL'S PRESTAL BENDER, INC.
Dept. BW-9 Milwaukee 2, Wisconsin

Defining Foremen

Packard asks high court
to clarify supervisory employee
issue, while some managements
look to Congress for aid.

U. S. Supreme Court interpretation of the right of foremen and other supervisory employees to bargain collectively through labor unions was sought last week by the Packard Motor Car Co. There were increasing indications in Washington, however, that management generally was really looking to Congress rather than the court to help it in its fight to keep supervisors out of labor organizations.

The temper of the newly elected Congress on labor matters will, of course, be the controlling factor in deciding the success of demands for a legislative clarification of the status of supervisory employees. Since under the National Labor Relations (Wagner) Act the term "employer" covers "any person acting in the interest of any employer directly or indirectly," Packard contends that by law its foremen should be classified as a part of management. But the wording of the law is so ambiguous that it has brought forth a mass of contradictory opinions.

• **Foremen, the First Step?**—Packard's appeal from a lower court decision (BW—Sep. 7 '46, p86) in a three-year-old dispute involving refusal to recognize the unaffiliated Foreman's Assn. of America contends, for instance, that its 1,106 foremen act "directly in the interest of the [company] in carrying out the very purpose of the act—namely, collective bargaining."

Foremen, according to the company, are "the first step" in grievance proceedings under the Packard contract with the United Auto Workers (C. I. O.), representative of 32,000 rank-and-file employees. To permit unionization of foremen would be to "throw [them] in the union stream with the very men they supervise, and subject them to union pressure and union principles," Packard contended in its brief.

• **Three Questions**—The company asked the court to determine:

(1) If general foremen, foremen, assistant foremen, and "special assignment men" rated by the company as supervisory employees actually were covered by the intent of Congress in its definition of employees in the Wagner Act:

(2) If so, "Can they be properly included within a unit for the purpose of collective bargaining;" and

(3) If they can be, then should they be lumped together into one bargaining

unit, or should they be segregated according to rank?

Under the decision from which Packard appealed, foremen's unions must be recognized for collective bargaining if they are not affiliated in any way with unions of rank-and-file workers. The U. S. Circuit Court of Appeals in Cincinnati ruled that "although he [the foreman] is a part of the front line of management he is an employee with reference to wages and conditions of employment."

• **Broader Case**—Also headed to the Supreme Court this term is the broader Jones & Laughlin Steel Corp. case (BW—Oct. 12 '46, p96) which deals with organization of supervisory employees into unions which also include production workers. What the high court decides will have important bearing on supervisory labor relations—but with congressional action on the question a strong possibility, the decisions may not be final.

Windfall for Foremen

Groups of plant foremen throughout the country, at the suggestion of the Foreman's Assn. of America, independent supervisors' union, are looking back over their wartime work records and filing, or preparing to file, suits against their employers for overtime pay they believe to be due them under a court interpretation of the Fair Labor Standards Act.

• During the war, many foremen pitched in on short-handed production jobs with no thought of establishing their right to premium pay. But now, the Detroit federal court has ruled that \$355,000 is owed to 478 foremen for work done between the start of 1941 and Aug. 1, 1945, in plants of Continental Motors Corp. Half of this sum is premium overtime pay, the rest was awarded as damages.

The basic ruling on which the decision stands is that if a foreman paid on a straight-time basis spent more than 20% of his time doing the same work as the men under him, he is entitled to overtime pay. Continental does not plan to contest the decision of the court.

• Since the Continental decision was handed down, similar suits have been filed in Detroit against Ex-Cell-O Corp., Hudson Motor Car Co., Westinghouse Electric & Mfg. Co., Republic Aircraft Products Co., and Bohn Aluminum & Brass Corp.

Pack-
ust be
ng if
with
The
Cin-
[the
nc of
with
ns of

the
oader
(BW
h or
s into
ction
cides
uper-
con-
on a
y not

on
he
n.
er-
ck
ds
le,
or
be
re-
ds

en
ro-
re-
bit
5,-
or
of
ts
half
ne
m-

he
re-
sis
ne
en
er-
ot
he

on
its
ust
or
ric
raft
ni-

1946

some of our chemists are



INVISIBLE!

TWO KINDS of chemists work in our plants and laboratories. Many have doctor's degrees and look just like the rest of us. You can regularly find them at work on our customers' problems. Others are invisible—at least to the unaided eye. These latter are the various bacteria, yeasts, and molds which, no less than human chemists, are capable of manufacturing chemicals.

These two kinds of chemists illustrate the two ways in which Commercial Solvents products are made. The human chemists take natural gas, for instance, and by means of heat, pressure and catalysts rearrange its molecules to form formaldehyde, the nitroparaffins and the methanol which, made into anti-

freeze, protects the radiator of your car in winter. The microscopic "chemists" take grain or other carbohydrate materials and by fermentation convert them into alcohol, butanol, acetone, riboflavin and penicillin.

These two chemical processes, synthetic and biological, are used by Commercial Solvents to make chemicals. Through its knowledge and skill in both, CSC serves medicine, industry and agriculture.

COMMERCIAL SOLVENTS

Corporation

17 East 42nd Street, New York 17, N.Y.

Some

MOUSE TRAPS

Make More



MICE than MONEY!

Let these important factors which we correlate in the successful solution of industrial plastic injection molding problems assist you in producing a SUPERIOR PRODUCT.

LONG EXPERIENCE

in solving a wide variety of industrial molding problems.

FIVE ENGINEERING SPECIALISTS

whose background and experience establishes them as leaders in their field.

103 EMPLOYEES

working as a team undisturbed by strikes, lock-outs or dissatisfaction.

MODERN EQUIPMENT

Press capacity comparable to any company on the coast.

MOST COMPLETE TOOL and DIE

making equipment in the west.

18,000 SQ. FT. PLANT AREA

engineered for maximum efficiency.

ESTABLISHED CONTACTS with material suppliers.

Write or phone for catalog showing our facilities for solving your plastic injection molding problems.

PLASTIC DIE & TOOL CORP.
2140 S. Vermont Ave. - Phone RO 2144
Los Angeles 7, California

THE LABOR ANGLE

Arbitration

A fairly wide area of agreement exists on the point that if something is to replace the strike as an instrument for settling labor disputes, that something will have to be arbitration. But the area of agreement extends no further. The group minds interested in such a discussion desert a common ground when practical questions are raised as to what will be arbitrated, how arbitration will work, who will do the arbitrating, whether it will be compulsory or voluntary, etc.

The differences which develop over these issues appear too profound to be reconciled. But the fact is that, with one exception, they are being reconciled all the time in every conceivable type of industrial situation. For, by expert estimate, seven out of every ten labor contracts provide for arbitration of differences which arise while they are in force, and hundreds of disputes of all descriptions are arbitrated every month. It is the highly exceptional employer or union which cannot find agreement with the other party on the conduct of an arbitration case.

What?

Only one basic question raised by the "arbitrate-instead-of-strike" proposal is not being solved every day in arbitration cases to the general satisfaction of both employers and unions. That question is, of course: What will be arbitrated?

There is no real opportunity for that question to arise in the familiar, widely accepted arbitration pattern. It is already answered. What is arbitrated is a specific act of commission or omission, and the law by which it is judged is the contract. What is to be arbitrated is simply an alleged violation of that contract and the scope of the arbitration is thus prescribed.

Scope

But the "arbitrate-instead-of-strike" proposal, assuming as it does that the contract terms themselves will be determined by the arbitration, has no defined scope, and it would seem that the arbitrator's authority would be as limitless as the right of either party to make demands.

That this is the real problem is

attested by what happens in most contract-negotiating disputes that draw, from some source, a proposal that they be submitted to arbitration. Before negotiations have stripped union demands down pretty close to bedrock, the union is disposed to accept and the company to resist arbitration. Once the union's minimum demands are on the table, however, it is the company which is disposed to favor arbitrating and the union which resists it. This is elementary strategy, well known to any professional in the field. But it points up what has to be solved if the arbitration process is to replace strikes.

The union wants to be sure that an arbitration award will not compromise aims that it is willing to strike for; the employer wants to be sure that the arbitrator will not take seriously union demands which are unreasonable and/or are introduced solely for bargaining purposes. That is the crux of the "arbitrate-instead-of-strike" problem.

Tastes

Officials in the Kimberly-Clark plants in Neenah, Wis., concerned over employee beefs at single-dish menus which have been all the company cafeteria could provide, are pleased with the solution they have found to what looked like a source of complaint beyond their power to rectify. They learned, upon investigation, that workers were not inclined to quarrel with the obvious necessity of being offered a very small selection at lunchtime, that everybody understood that the food situation was tough.

What did make people sore, however, was having nothing to eat but, say, steamed smelts when they were allergic to fish, or stuffed tomatoes, which "always gave them a rash." The company found that any limited menu runs smack against food taboos from which very few individuals are completely free.

The problem was satisfactorily licked by simply posting advance menus on bulletin boards all over the plant. Result is that, if an employee who simply can't stand deviled eggs sees that deviled eggs are tomorrow's dish, he brings a couple of liverwursts on rye from home and feels very superior to the poor egg eaters.

Kodak

The Kodak Transfax Process

● so simple to use... ● in so many ways...

Transfax is a white spray, light-sensitive, quick-drying... It reproduces designs, legends... quickly and accurately... on metal, plastic, and many other surfaces.

It's as simple as this...

You spray it on the product-surface. Some surfaces need special primers.

You place a transparent or translucent original on the Transfax-coated surface. You expose to strong light.

You rinse with a weak ammonia solution.

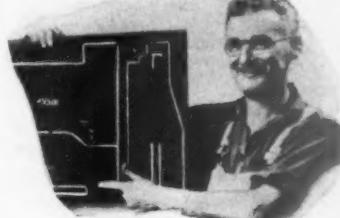
You get a Transfax reproduction of the original quickly... inexpensively... without a darkroom... and the process can be handled by anyone with ordinary skill.

Where a long-life or a wear-resistant finish is desirable, a clear lacquer overcoat should be applied.

You can use it like this...



...for dials or scales



...for fabricating directions



...for name plates or monograms



...for wiring diagrams

You've seen four of the many possible uses of Transfax. To get information about applying Transfax to your particular needs, write to...

EASTMAN KODAK COMPANY
Industrial Photographic Division
Rochester 4, N. Y.

TRANSFAX

Saves Time...

Ends Error...

Speeds Production

*Mail coupon
for Free folder*

Eastman Kodak Company
Rochester 4, N. Y.
Please send me your free folder on the
Kodak Transfax Process.

Name _____

Company _____ Department _____

Street _____

City _____ State _____



A railroad crosstie is just a precisely processed piece of good timber. But it takes 16,000,000 of them to share the load day in and day out along the Norfolk and Western Railway. Each tie must be near-perfect . . . for each has a sturdy job to do in the railroad's overall operation.

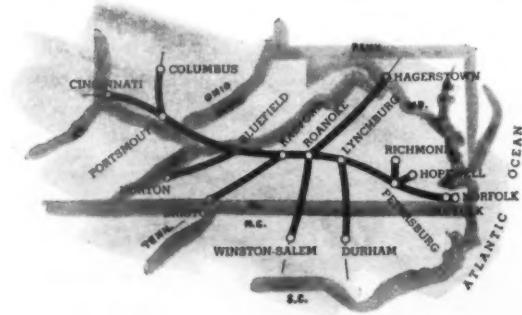
The crosstie is another one of those "little" things which go to make up the railroads. Good, strong ties are an important part of good railroading. And they take a terrific beating. Exhaustive experimentation proves that they must be made of wood. For over a long period of time, only wood can give strength and the required high degree of resiliency.

Each tie is a work of science — carefully selected from the best timber, precisely cut to measure, critically inspected, chemically

treated for long life, dated and installed by roadbed experts. Without scientific treatment, the average tie would last only seven years. The N. & W. maintains its own tie treating chemical plant, staffed by experienced men who know how to give long life and service to ties. Today, N. & W. ties have an average life of 20 years.

Sleek passenger trains and heavy tonnage freight trains are rolling day and night over heavy steel rails on fast schedules to the markets and seaports of America — safely and smoothly, because each tie helps to make it that way.

Norfolk and Western ties are strong — and there are 16,000,000 of them to share the load . . . to *Serve You*.



**Norfolk
and Western
RAILWAY**

PRECISION TRANSPORTATION

THE
BUSI-
NOV.

THE INTERNATIONAL OUTLOOK

BUSINESS WEEK
NOVEMBER 16, 1946



It will be increasingly clear as the New York meeting of the Council of Foreign Ministers progresses that no broad compromise has been reached between the Soviet Union and the western powers.

Stalin's conciliatory statement through the press a month ago and, more recently, Molotov's implied willingness to speed plans for the economic unification of Germany can be discounted as diplomatic eyewash as far as any immediate results are concerned.

The Kremlin, rather than the White House, benefits from the French election.

While the division of votes between Left and Right is about the same as it has been for the last 20 years, the chief Left party now is the Communist rather than the Socialist.

Also, with no party holding a majority of power and with small likelihood that either the Right or the Left can form a stable coalition government, France probably is headed for at least five years of political see-sawing with resultant repercussions on the economy.

All this will play into the hands of Moscow.

The Italian election, with its parallel gains by the Communists, also indicates that Moscow is maneuvering successfully far beyond the iron curtain.

U. S. and British influence remains dominant in Italy, but their ability to win effective backing from the local government is jeopardized by the possibility of obstructionist action from Moscow-led Communist representatives.

Acute friction between the U. S. and British control authorities in Berlin will also encourage Moscow to hold out for bigger stakes in any deal on Germany.

The situation came to a climax last week when top-ranking officials from the British zone arrived in Washington to discuss not future policy for Germany as a whole, but some way of speeding up the economic merging of the British and American zones.

Current difficulties hinge on the fact that the American zone has made greater production progress, received larger supplies of imports, and now is promised financial aid in the form of RFC credits to German firms.

Real objective of the British delegation in Washington is to secure dollar credits and food supplies for the populous British zone.

Actually, not even in the U. S. zone is the rehabilitation program working effectively.

Military government officials have drawn up an initial list of raw material requirements amounting to \$10 million.

Theoretically this would provide the basis for producing exports worth \$35 million to \$40 million.

Officials pointed out to Business Week's representative that \$1 million invested in the special type of coal and clay (both obtainable in Czechoslovakia) needed for ceramics would produce finished products worth \$9 million.

In addition, one byproduct—soda ash—would sell quite profitably in

THE INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
NOVEMBER 16, 1946

world markets, could be allocated to meet a temporary shortage in the U. S. Sole reason given for the delay in the U. S. program is that "the matter needs more study."

Ultimately, an economy-minded Congress may force action.

Occupation costs in Germany and Japan are currently being passed along to the U. S. taxpayer at the rate of \$2 billion a year.

The German share of this tops \$1.2 billion.

Because of these fresh signs of weakness in the Anglo-U. S. program, don't look for early solution of the problems of Trieste, the Dardanelles, trusteeships, Pacific bases, or China.

Washington's lack of a long-term foreign policy is responsible for our holding the Danube ships, only to release them last week with no compensating concession by the Russians.

Despite bipartisan support for basic foreign policy during the last two years, the political shift in Washington is bound to create more, rather than less, uncertainty—at least temporarily.

Moscow can be expected to play this advantage to the limit.

Business, meanwhile, continues to make striking gains in many parts of the world.

In Britain, Reid & Sigrist, Ltd., makers of precision instruments, are completing arrangements to produce Leica cameras on patents and equipment acquired in Germany.

Production is scheduled at 10,000 a year, with the retail price set at \$220, or practically the prewar price including the British duty.

India is attracting an increasing variety of foreign investments.

Chemical Construction Corp. of America has just been awarded a \$100,000,000 contract to equip a large fertilizer plant at Sindri.

Two British firms are participating but, because of the inability of British industry to keep up with domestic needs, the bulk of the equipment will come from the U. S.

Two other U. S. companies are involved in another industrialization project in India.

Skenandoa Rayon Corp. will supply technical assistance and Lockwood Greene & Co. will act as consulting engineers for a new, \$30,000,000 rayon plant to be erected near Bombay and known as National Rayon Corp.

The deal with Skenandoa is typical of contracts sought by Indian industrialists in many lines.

In return for its know-how in designing and establishing the plant, training key operators, and keeping the industry up-to-date for a minimum of ten years, Skenandoa is to receive at least \$250,000, part of it in stock which, in India, frequently pays dividends up to 40%.

If, despite the dim prospect of a U. S. loan, you want to try selling in the Russian market, don't overlook the fact that the Amtorg Trading Corp. is now preparing to publish for distribution in Russia the first postwar edition of its Catalog of American Engineering & Industry.

BUSINESS ABROAD

England Wants Tourists

Bidding for a revival of one of its biggest prewar producers of foreign exchange, Britain is taking steps to attract 250,000 visitors next year. But shortage of hotel space may be a problem.

LONDON—England, an old hand at the tourist table, last month picked up its prospects for 1947, saw an ace, hastily bid game. The ace: More steamships will be back in normal service and more berths in them will be available for nonpriority passengers. The bid: Beginning in 1947, visas will again be granted freely to all tourists except former enemy nationals.

Actually, it may be that Britain has overbid. Shortages of hotel accommodations, adequate service, materials for needed renovations, food, sheets, and soap may result in either a slowly played hand or a possible set.

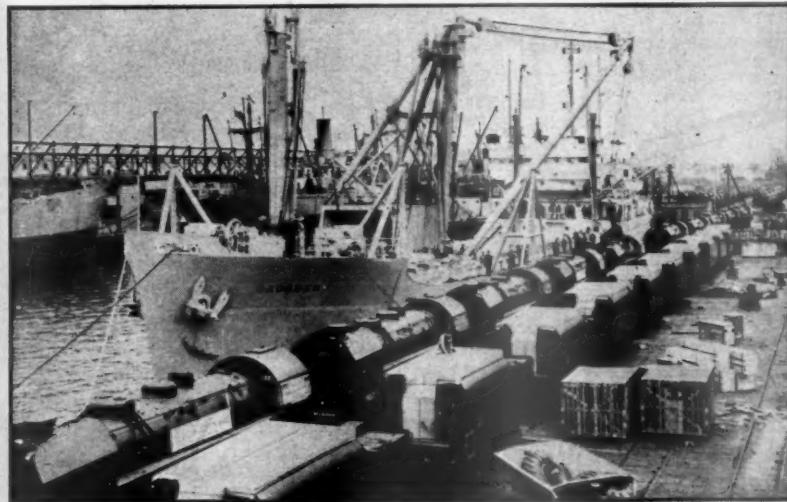
• Prospects—Surface symptoms point to a huge international tourist business next year, and to Britain as one of the most favored countries to visit. The British Travel Assn. expects 65,000 U.S. visitors in the 1947 tourist season from May to September. Visitors from other countries, notably the Dominions and South America, may swell the total to an estimated 250,000 for the year. Al-

lowing an average expenditure of \$100 apiece (exclusive of fares), Britain hopes to gain \$300,000,000 a year in foreign exchange from tourist business after conditions have returned to normal.

• Two Boosts—Plans for the tourist boom gathered momentum when the Ministry of Transport, following the flurry of excitement caused by the return of the Queen Elizabeth to commercial service, announced that it was returning to the shipping companies the booking of passengers on British ships plying the majority of ocean routes.

And, taking a quick count of the staterooms made available by the newly decorated America and Ile de France, by the luxury ships from South Africa and the Orient soon to be reconditioned, plus other vessels on the way back to their former owners, the government announced that, beginning in 1947, British visas would be freely granted to all tourists.

• Promotion—to swell the number of tourists next year, the Travel Assn. is



FOR FRANCE: FIRST MONEY, THEN EQUIPMENT

Lined up on a Baltimore pier, Baldwin locomotives and tenders (above) await shipment to France, not under lend-lease but as part of the \$80 million chunk of the French loan earmarked to be spent in the U.S. for rail equipment. Thirteen of 45 Baldwins on the dock were picked up by the Gadsden, former assault cargo ship, when it made its maiden voyage as a specially equipped locomotive transport—to help replace Europe's war-devastated rolling stock.

Honey-Cured Quinine

MOSCOW—Russians hate the bitter taste of quinine enough to have developed a new industry employing thousands of honey bees to take the stuff for them.

Bees feeding on mixtures of quinine and honey at experimental stations in the North Caucasus are producing a quinine honey which, according to Russian sources, contains "exceptional medicinal qualities." The drug thus created is said to retain no bitter taste.

Other bee-feeding experiments have brought forth various vitaminized and medicated honeys which are reported to have a beneficial effect in cases of tuberculosis, anemia, stomach trouble, and heart disease.

The behavior patterns and productivity of the bee are said to be unaffected by the new assignment.

setting up information bureaus in the capitals of 20 European countries and has launched an expanded publicity campaign which—before Jan. 1—will put more than five million pieces of literature into circulation.

Another device introduced to tempt visitors is the invitation to honorary membership in the Travel Assn. which has been mailed to all former servicemen and women of the United Nations who served in England or alongside British forces during the war. Already 40,000 recipients from more than 30 countries have accepted the invitation and indicated their desire to visit England.

• The Accommodation Problem—But is England ready yet to receive any great influx of tourists? A close checkup seems to indicate that the government may have plumped prematurely.

Clearly, the biggest drawback to Britain's dream of entertaining more tourists is the present shortage of hotel space. The Hotel & Restaurant Assn. was quick to point this out publicly the day after the government's brave announcement. "In this past season," says the association, "many hotels had to turn away people." Yet they could not book to their full capacity because they have been held up on repairs, renovations, and lack of equipment.

More than 550 hotels are still required to house government offices, victims of the blitz, and service personnel. The 3,600-odd which have been released from requisition are held back from full resumption of service by shortages of what it takes to run a hotel—including trained employees.

• New Construction Unlikely—No new hotels are under construction, nor are



98 New Industries in 18 Months

Here is evidence that business is on the move to Colorado. Above are brands of some of the 98 new industries that have located their plants in Colorado within the past 18 months. Why did they move here? For these good reasons—To develop the new, rich Western market, while retaining present national markets—To reduce costs of production through cooperative, highly productive labor, low-cost fuel and power, and quickly accessible raw materials—Because of economical distribution costs in centrally located Colorado, and an all-year climate made for living.

Value of Manufactured Goods Produced Per Wage Earner 29.6% Above National Average

Evidence of the high productivity of Colorado labor is shown in the latest figures compiled by the U. S. Bureau of Census. Based on this report, the value of manufactured goods produced per wage earner in Colorado is 29.6 per cent above the national average. This is largely due 1), to the high type of labor; 2), to the minimum loss of time from sickness, and, 3), to increased efficiency in Colorado's famous mountain climate.

Send for FACT BOOK of Colorado

This 28-page book, "Colorado—Strategic Center of America's Markets", gives you key facts and figures about the industrial advantages of Colorado. Available to business executives. Mail coupon now for your copy. Your inquiry held strictly confidential.



COLORADO DEPT. OF DEVELOPMENT

117 State Capitol, Denver, Colorado

Please send me 28-page book, "Colorado—Strategic Center of America's Markets."

NAME _____

ADDRESS _____

300 SUNSHINY DAYS A YEAR

any in prospect. Even if building restrictions were relaxed, it is unlikely that many new hotels would be started unless the government should encourage such building by lending money for it at low rates.

Also, the hotel industry says that the government ought to allow expenditures for renovation to be deducted from income taxes.

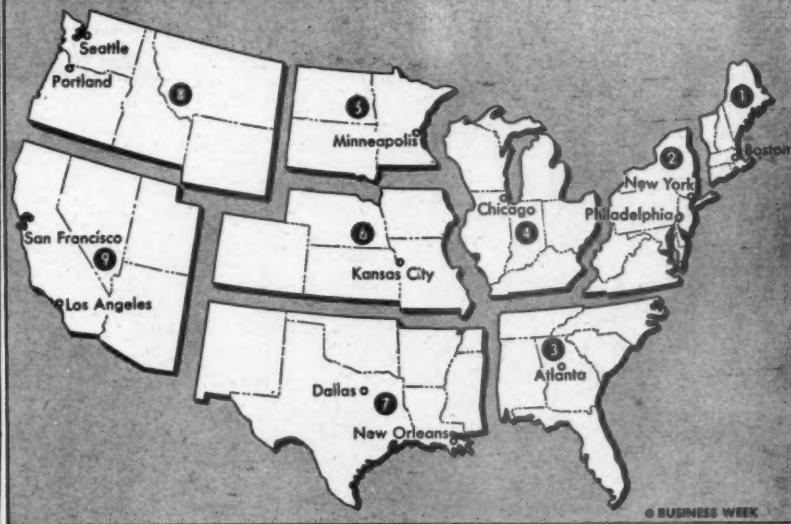
The government believes that Britain can cope with the business likely to develop, but has no intention of nationalizing the hotel industry or of compelling hotels to allocate space for tourists. By the end of April, 1947, all but 300 of the hotels requisitioned by the Ministry of Works will have been released, and owners will be urged to make necessary repairs, especially sanitary improvements and small structural jobs, which require no priorities or permits.

• **Round-Trip Problem**—The potential American tourist, unless he doesn't care how long he stays in England, had better have a confirmed reservation for return passage.

Even with 2,500 passengers a week passing in and out of London Airport on transatlantic flights, there are an estimated 20,000 more who are waiting for air passage out of England. Nearly 2,000 are actually waiting on a day-to-day basis for a cancellation on planes bound to New York.

The rush for westbound passage on ocean liners is almost as great.

U. S. REGIONAL DISTRIBUTION—BRITISH PATTERN



After three years of market research and experimental selling in a guinea pig area centered in Dallas, Hambros Bank Ltd. of London has divided the U. S. into nine basic distribution zones and established a central office in New Orleans to serve Dallas and a new center soon to be opened at Atlanta. In an effort to get away from hit-or-miss selling to the mixed tastes of the American market through come-and-get-it agents in New York, the Hambros Trading Co.—sales representative for 20 medium-sized British manufacturers—eventually will establish regional offices in each zone.

Britons Zone U. S.

Hambros, British merchant bank, caters to our regional diversity in export program. Test in Southwest a success.

Convinced now of its ability to use established U. S. regional distribution systems to pep up British export trade with this country (BW—Apr. 14/45, p113), Hambros Bank Ltd., London's 107-year-old merchant banking house, has established a fledgling subsidiary with ambitious plans—the Hambros Trading Co. of America, Inc., with central offices in New Orleans.

• **Unique Approach**—The company's plan, unique among British exporters in this country, has been developed from years of spadework on both sides of the Atlantic. It is based upon recognition of the fact that the U. S. market consists of at least nine concentrations of consuming power, each with its own distinct characteristics.

Heretofore, the company found, only haphazard coverage of the nation's markets resulted from reliance on a single New York agent not necessarily representative of the requirements of the rest of the country.

• **Emphasis on Specialties**—It is the plan of the Hambros Trading Co. to import

Fruehauf's RING CASH REGISTERS

FOR MONTGOMERY
WARD



... HOW TRAILERS STOCK STORES AND STEP UP HOME DELIVERIES!

IF YOU buy Junior a bed, Mother a rug or make any sizeable household purchase at one of the 4 Montgomery Ward stores in the Detroit area, your goods are delivered in a Fruehauf Trailer.

A fleet of 40 Fruehauf* works constantly to keep goods flowing to warehouse . . . to stores . . . and to homes within a radius of 70 miles. The larger Trailers haul merchandise to warehouses and keep retail displays well filled. Usually you'll find one or more of these Vans parked at store docks being unloaded. A like number are at the warehouses for loading.

Trucks are never idle. As rapidly as a Trailer is loaded, a truck is coupled and off it goes to the store where the Trailer is "spotted". The truck is then detached, coupled to an empty Trailer and returns.

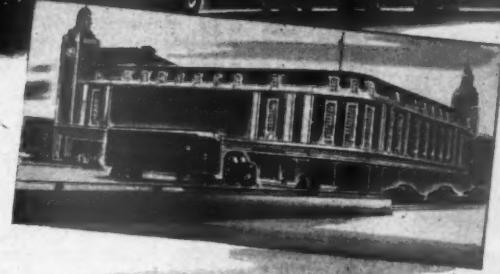
In addition, the Trailers handle home deliveries. Each evening, the day's sales are loaded into the Trailers at the warehouse. When the drivers arrive in the morning, there's no waiting for loading. They leave immediately.



Safety awards won by
the drivers in the
J. E. Bejin Fleet.

★ HIGHWAY USERS PAY FOR THE ROADS! ★

★ Government studies prove that commercial vehicle operators ★
★ pay more than their full share each year for road building and ★
★ maintenance. And, in 1940 (last normal year before the war) ★
★ highway users paid \$755,613,000 in taxes to the general sup- ★
★ port of the government, excluding income, excess profits and ★
★ social security.



Up narrow streets and village lanes these double-jointed Vans are maneuvered with ease. The drivers will tell you they turn in the same radius as the short trucks which pull them.

J. E. Bejin, owner of the fleet, states, "To maintain the kind of service Wards demand, we couldn't handle the job as well with anything but Fruehauf Trailers."

Should you have a hauling problem—either local or long distance—the nearest Fruehauf man will acquaint you with the Trailer story. It's most probable his advice will save money for you.

*Owned and operated by J. E. Bejin Cartage Company.

World's Largest Builders of Truck-Trailers

FRUEHAUF TRAILER CO. • DETROIT 32

9 Factories — 62 Factory Service Branches

"Engineered Transportation"

REG. U. S. PAT. OFF.



FRUEHAUF TRAILERS

"Yes. Heat where you want it"



1. Space
2. Cleaning expenses
3. Boiler man salary
4. Fuel costs
5. Expensive installation costs
6. Off season discomfort
7. Illness from poorly heated areas



REZNOR
gas unit heaters
REZNOR
MANUFACTURING CO.
Since 1888
MERCER, PA.

NO BOILERS • NO STEAM LINES
NO FUEL STORAGE • NO FIRE TENDING

YOUR INDUSTRY in

BILOXI
MISSISSIPPI

Available industrial sites on deep water and rail. Intelligent, willing labor. Cheap power and natural gas. Tax exemptions. Full local cooperation. Let us submit facts pertaining to your industry. Write or phone—

BILOXI
CHAMBER of COMMERCE
BILOXI, MISSISSIPPI

ON THE GULF OF MEXICO

STEP INTO COMFORT IN
ST. LOUIS

HOTEL

Maufair

items which are not in direct competition with the products of American manufacturers—novelty and specialty items, for the most part, rather than static lines of merchandise.

Every month now a ship loaded with British goods is arriving in New Orleans. The bulk of operations for the company's original area of experimentation was removed from Dallas, Tex., to New Orleans on Nov. 1. These goods are being sold to approximately 1,000 accounts in nearly 300 towns in the Southwest which before handled little or no imported goods.

During 1946 the Dallas distributor will handle about 3,800 Famous James motor bikes, about 15,000 sets of Swinnerton's and Royal Winton china, custom-made sporting guns from England, fine fishing rods from Sweden, and many other specialty items.

• **Nine Zones Planned**—The next move, to develop the West Coast zone centering about Los Angeles along the lines pioneered in Dallas and New Orleans, awaits only an increased flow of British goods. After this region, Hambro will look toward Atlanta and then to Chicago, where the company hopes to set up permanent central offices. From this point, the plan is to complete the pattern of coverage dividing the U. S. into nine zones (map, page 110).

The company asserts that several British exporters have declared that if the plan develops as projected, Hambros Bank will hold a blank check on British trade.

• **Works Both Ways**—Hambro Trading Co. also is offering its services and the international facilities of Hambros Bank to U. S. manufacturers who want to get goods to foreign markets, especially those in England and Scandinavia, where the bank is strongest.

To complete the planned two-way trade cycle, Hambro will seek in the U. S. manufactured and raw materials which fit into the European economy but which are not in direct competition with the goods of European producers.

EXPORT GROUP FORMED

Five of America's largest manufacturers of laboratory equipment have joined to form the United States Scientific Export Assn., Inc. Fisher Scientific Co. of Pittsburgh, Eimer & Amend of New York, and Chicago Apparatus Co., W. M. Welch Mfg. Co., and E. H. Sargent & Co., all of Chicago, are acting under the Webb-Pomerene Export Trade Act which exempts the association from Sherman antitrust action so long as there is no restraint of trade.

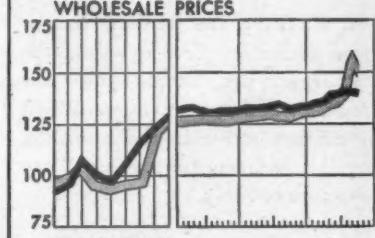
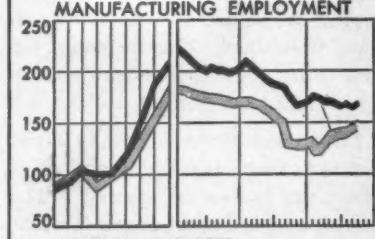
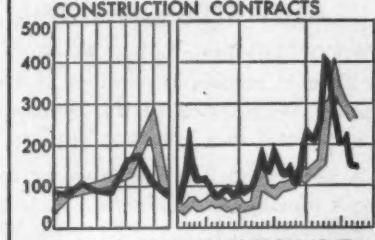
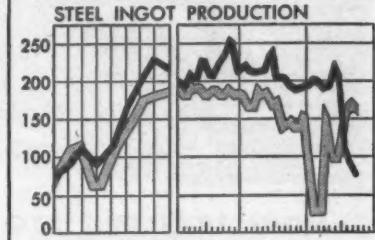
Over a period of ten years, the association plans to sell \$20,000,000 of U. S. equipment abroad, but this sum is only a fraction of what it will cost to revive laboratory operations in former

TREND OF BUSINESS CANADA AND U.S.A.

1935-39 = 100

CANADA

U.S.



© BUSINESS WEEK

Nazi
build
and
per
Pr
ket
Since
are 8
man
Germ
autho
conta
expect
tne
CA
Tr
per
bon
Civil
OT
tation
was z
dian
in bo
ne
be sh
other
custo
Amer
there
from
ulatio
bond
• Gat
privile
goods
north
try in
oppos
Alta.,
Alask
Cree
No
for tr
event
shipm
of Alas
will m
pects
WI
entry
ant C
end, t
Highw
Snag
• Use
the A
Milita
condit
ler is e
the ho
BLIN

Nazi-occupied countries where new buildings must be constructed, work and equipment programs laid out, and personnel recruited.

Prior to the war, this European market was largely German controlled. Since glass laboratory equipment costs are 80% labor and 20% material, U. S. manufacturers were not able to meet German prices. Although the military authorities in Germany will permit a controlled laboratory program, it is not expected that formerly occupied countries will wish to buy German supplies.

CANADA

Truck Rules Eased

Alaska Highway shippers permitted to transport goods in bond across Dominion territory. Civilian traffic still limited

OTTAWA—A lively source of irritation to users of the Alaska Highway was removed last week when the Canadian government authorized trucking in bond on the 1,500-mi. route and connecting roads.

The decision means that goods can be shipped from one U. S. point to another across Canadian territory without customs inspection. In effect, it excepts American-built roads serving areas where there is no alternative transportation from the general Canadian customs regulation which prohibits trucking in bond over Canadian highways.

• Gateways—To take advantage of the privilege, shippers must enter their goods at designated ports of entry. For northbound shipments the ports of entry into Canada are Kingsgate, Alta., opposite Eastport, Idaho, and Coutts, Alta., opposite Sweetgrass, Mont. The Alaska-Canada port of entry is Snag Creek, Yukon.

No port of entry has been designated for traffic on the Haines cutoff, which eventually will provide a short route for shipments from Skagway to the interior of Alaska by way of Canada. The road will not be open this winter and prospects for next summer are doubtful.

When the route is opened, a port of entry on the west will be fixed at Pleasant Camp, near Haines. At the other end, the Haines cutoff joins the Alaska Highway, and the entry port will be Snag Creek.

• Use Restricted—Full civilian use of the Alaska Highway is not permitted. Military authorities issue permits when conditions warrant and when the traveler is equipped to make his journey with the help of such facilities as exist.

ADVERTISERS IN THIS ISSUE

ALLEN CALCULATORS, INC.	44
Agency—Wesley Aver & Assoc.	
ALLIS-CHALMERS MANUFACTURING CO.	58, 59
Agency—Compton Advertising, Inc.	
ALUMINUM CO. OF AMERICA	88
Agency—Fuller & Smith & Ross Inc.	
AMERICAN GAS ASSOCIATION	33
Agency—Ketchum, MacLeod & Grove, Inc.	
AMERICAN LUMBER & TREATING CO.	80
Agency—Fuller & Smith & Ross Inc.	
AMERICAN OPTICAL CO.	60
Agency—Southland-Abbot	
THE AMERICAN ROLLING MILL CO.	38
Agency—N. W. Aver & Son, Inc.	
AMERICAN SURETY CO.	56
Agency—Albert Frank-Guenther Law, Inc.	
AMERICAN TELEPHONE & TELEGRAPH CO.	3
Agency—N. W. Aver & Son, Inc.	
AMERICAN VISCOSE CORP.	91
Agency—J. M. Mathes, Inc.	
ARCHER RUBBER CO.	60
Agency—Badger & Browning, Inc.	
THE AUTOCAR CO.	12
Agency—Gray & Rogers	
BAKER INDUSTRIAL TRUCK DIVISION OF THE BAKER RAULANG CO.	41
Agency—G. M. Basford Co.	
BANKERS TRUST CO.	1
Agency—Clegg & Denison, Inc.	
BILOXI CHAMBER OF COMMERCE	112
Agency—Dixie Advertisers	
BRISACHER, VAN NORDEN & STAFF	26
Agency—Brisacher, Van Norden & Staff	
BRYANT CHUCKING GRINDER CO.	45
Agency—Henry A. London, Adv.	
BUFFALO FORGE CO.	67
Agency—Melvin F. Hall, Adv. Agency, Inc.	
CENTURY ELECTRIC CO.	65
Agency—Oakleigh R. French & Assoc.	
CHRYSLER CORP.	114
Agency—Doremus & Co.	
CLINTON MACHINE CO.	54
Agency—J. J. Du Moshaw, Adv. Agency	
COLORADO STATE ADVERTISING & PUBLICITY MEANS	118
Agency—Galen E. Brooks, Co.	
COMBUSTION ENGINEERING CO., INC.	49
Agency—G. M. Basford Co.	
COMMERCIAL CREDIT CO.	38
Agency—Van Sant, Dugdale & Co., Inc.	
COMMERCIAL SOLVENTS CORP.	103
Agency—Fuller & Smith & Ross Inc.	
COMMONWEALTH EDISON & AFFILIATES	93
Agency—J. R. Pershall Co.	
CONNECTICUT GENERAL LIFE INSURANCE CO.	44
Agency—Edward W. P. Botham Co.	
CONTINENTAL CAN CO., INC.	3rd Cover
Agency—Batten, Barton, Durstine & Osborn, Inc.	
DEWALT PRODUCTS CORP.	68
Agency—Arthur R. Mogre, Inc.	
DIGITALPHONE CORP.	82
Agency—Young & Rubicam, Inc.	
DISTILLATION PRODUCTS, INC.	48
Agency—Knox Reeves Advertising, Inc.	
DUREZ PLASTICS & CHEMICALS, INC.	47
Agency—Addison, Vars Co.	
EASTMAN KODAK CO.	105
Agency—J. Walter Thompson Co.	
ELLIOTT ADDRESSING MACHINE CO.	34
Agency—Alley & Richards Co.	
EMPLOYERS MUTUAL LIABILITY INS. CO. OF WISC.	40
Agency—Hamilton Adv. Agency	
FINNELL SYSTEM, INC.	70
Agency—Johnson, Read & Co., Inc.	
FRUHAUF TRAILER CO.	111
Agency—Kuhn, Aecker Co., Inc.	
FULTON SYLPHON CO.	55
Agency—The Griswold-Eshleman Co.	
GENERAL ELECTRIC CO. CHEMICAL DEPT.	14
Agency—Benton & Bowles, Inc.	
GENERAL ELECTRIC CO. AIR CONDITIONING DEPT.	90
Agency—Newell-Emmett Co.	
THE B. F. GOODRICH CHEMICAL CO.	4
Agency—The Griswold-Eshleman Co.	
GOODYEAR TIRE & RUBBER CO., INC.	4th Cover
Agency—N. W. Aver & Son, Inc.	
GREAT NORTHERN RAILWAY	51
Agency—Ranck, Meyer & Finn, Inc.	
GREATER NEW ORLEANS INC.	53
Agency—Bauerlein, W. Agency	
HARLOWE MUTUAL CASUALTY CO.	27
Agency—William C. Clary, Inc.	
HARTFORD STEAM BOILER INSPECTION & INS. CO.	2
Agency—N. W. Aver & Son, Inc.	
HEIN-WERNER MOTOR PARTS CORP.	86
Agency—Arthur R. Mogre, Inc.	
R. M. HOLLINGSHEAD CORP.	30
Agency—The Atkin-Kynett Co.	
A. C. HORN CO., INC.	73
Agency—Pork Advertising Agency, Inc.	
HOTEL MAYFAIR	112
Agency—Gardner Advertising Co.	
HYATT BEARINGS DIV. GENERAL MOTORS CORP.	57
Agency—Campbell-Ewald Co., Inc., Eastern Div.	
HYSTER CO.	69
Agency—Benton & Bowles, Inc.	
INDIANA DEPT. OF COMMERCE & PUBLIC RELATIONS	46
Agency—Pettinger-Harding, Inc.	
THE INDIANA STEEL PRODUCTS CO.	99
Agency—Chas. Daniel Frey Adv. Agency	
THE INTERNATIONAL NICKEL CO., INC.	6
Agency—Marachalk & Pratt Co.	
JENKINS BROS.	37
Agency—Horton-Noyes Co.	
WALTER KIDDE & CO., INC.	51
Agency—Newell-Emmett Co.	
THE LINDSAY CORP.	36
Agency—The Penske Co.	
THE LIQUIDOMETER CORP.	86
Agency—Jensen Co., Inc.	
THE LORD MANUFACTURING CO.	96
Agency—W. S. Hill Co.	
P. R. MALLORY & CO.	77
Agency—The Atkin-Kynett Co.	
MANNING, MAXWELL & MOORE, INC.	42
Agency—Briggs & Varley, Inc.	
THE MARINE MIDLAND TRUST CO. OF NEW YORK	8
Agency—Batten, Barton, Durstine & Osborn, Inc.	
MASSACHUSETTS DEVELOPMENT & INDUSTRIAL COMM.	115
Agency—John C. Dowd, Inc.	
MERRILL LYNCH, PIERCE, FENNER & BEANE	79
Agency—Albert Frank-Guenther Law, Inc.	
THE MEYERCORD CO.	28
Agency—C. C. Fogerty Co.	
MINNEAPOLIS-HONEYWELL REGULATOR CO.	101
Agency—Addison Lewis & Associates	
MONSANTO CHEMICAL CO.	8
Agency—Gardner Advertising Co.	
MOODY'S INVESTORS SERVICE	76
Agency—Moody's Investors Service, Inc.	
NATIONAL CASH REGISTER CO.	71
Agency—McCam-Erickson, Inc.	
NATIONAL CITY BANK OF NEW YORK	87
Agency—Batten, Barton, Durstine & Osborn, Inc.	
NEENAH PAPER CO.	72
Agency—Kirigaster-Drew	
NEW DEPARTURE DIV. OF GENERAL MOTORS CORP.	43
Agency—J. M. Hickerson, Inc.	
NORFOLK & WESTERN RAILWAY CO.	106
Agency—Houck & Co.	
NORTHWESTERN MUTUAL FIRE ASSOCIATION	78
Agency—Hong-Coope Co.	
NORTON CO.	63
Agency—John W. Odlin Co., Inc.	
THE OHIO CRANKSHAFT CO.	61
Agency—The Griswold-Eshleman Co.	
OTIS-MCALLISTER & CO.	102
Agency—Dore Co.	
OZALOID PRODUCTS DIV. GENERAL ANILINE & FILM CORP.	75
Agency—Young & Rubicam, Inc.	
PAINTE WEBBER, JACKSON & CURTIS	76
Agency—Doremus & Co.	
ALBERT PICK CO., INC.	44
Agency—Earle Laddin & Co.	
PITTSBURGH CORNING CORP.	89
Agency—Batten, Barton, Durstine & Osborn, Inc.	
PITTSBURGH PLATE GLASS CO.	71
COLUMBIA CHEMICAL DIV.	71
Agency—Ketchum, MacLeod & Grove, Inc.	
PLASTIC DIE & TOOL CO.	104
Agency—Booker-Cooper, Inc.	
POWER & MECHANICAL ENGINEERING EXPOSITION	98
Agency—O. S. Tyson & Co., Inc.	
PYROL CO.	114
Agency—Mack & Thomas, Inc.	
REVERE COPPER & BRASS, INC.	2nd Cover
Agency—St. Georges & Keyes, Inc.	
REZNOR MFG. CO.	112
Agency—Mack & Thomas, Inc.	
ROSS CARRIER CO.	24
Agency—Parson Advertising	
JOS. T. RYERSON & SON, INC.	23
Agency—Aubrey, Moon & Wallace, Inc.	
SAN JOSE CHAMBER OF COMMERCE	94
Agency—Wank & Wank, Adv.	
SOUTHERN RAILWAY SYSTEM	25
Agency—Newell-Emmett Co.	
SUNROC REFRIGERATION CO.	31
Agency—Gray & Newell, Inc.	
SUPERIOR STEEL CORP.	29
Agency—Walker & Downing	
TAL'S PRESTAL BENDER.	102
Agency—Chas. Meissner & Assoc., Inc.	
TAYLOR INSTRUMENT COS.	81
Agency—Batten, Barton, Durstine & Osborn, Inc.	
TOWMOTOR CORP.	84
Agency—Howard Swink, Adv. Agency	
THE TRAVELERS INSURANCE CO.	78
Agency—Young & Rubicam, Inc.	
TWIN DISC CLUTCH CO.	32
Agency—Spencer W. Curtis, Inc.	
UARCO, INC.	85
Agency—The Buchen Co.	
UNITED AIR LINES	95
Agency—N. W. Aver & Son, Inc.	
U. S. FIDELITY & GUARANTY CO.	83
Agency—Van Sant, Dugdale & Co., Inc.	
WAGNER ELECTRIC CORP.	62
Agency—Arthur R. Mogre, Inc.	
WAR ASSETS ADMINISTRATION	97
Agency—Fuller & Smith & Ross, Inc.	
WESTINGHOUSE AIR BRAKE CO.	39
Agency—Ketchum, MacLeod & Grove, Inc.	
WILKENING MFG. CO.	100
Agency—Gray & Rogers	
WORCESTER CHAMBER OF COMMERCE	74
Agency—Howard Wesson Co.	

**DIVIDEND ON
COMMON STOCK**

The directors of Chrysler Corporation have declared a dividend of seventy-five cents (\$75) per share on the outstanding common stock, payable December 14, 1946, to stockholders of record at the close of business November 16, 1946.

B. E. HUTCHINSON
Chairman, Finance Committee

HAVE HAPPIER WORKERS

Provide Soap They Like! Pynol washes away grease and grime fast, yet is kind to tender skin. Treated with Pine Oil (germicidal) —protects cuts—clean, mild fragrance. Lanolin-ated for skin health.

Available in 2, 10, 50, 100-lb. containers; 250 lb. barrels. Also hand soaps. Write—

PYNOL HAND DETERGENT
THE PYNOL COMPANY QUINCY, ILLINOIS

IF YOU

are a subscriber
to this magazine,
the fixed odds that you
hold one of the
following titles are . . .

President or Owner	1 to 3
Vice President	1 to 14
Sales Mgr. (including District and Asst.)	1 to 11
Management-man	96 to 1

THE MARKETS

(FINANCE SECTION—PAGE 76)

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial	144.0	147.4	148.2	163.6
Railroad	47.5	48.8	47.4	61.1
Utility	76.8	79.9	76.9	84.4
Bonds				
Industrial	122.5	122.5	122.0	122.1
Railroad	112.9	113.1	112.0	116.3
Utility	113.5	113.9	114.1	115.9

Data: Standard & Poor's Corp.

The Market Falters Again

The sharp price break, induced mainly by profit-taking sales, that greeted the news of the Republican sweep in the elections proved a one-day affair. However, it was instrumental in erasing about one-third of the price gain that had been registered in the stock market's one-week pre-election rally. Only about one-half the post-election losses were recovered before last week's trading sessions came to a close.

• **Widespread Losses**—Equally discouraging, especially to those who had thought that election results, plus the subsequent lifting of most remaining OPA price controls, might eventually touch off a really sharp upward surge of prices, were the results of New York Stock Exchange proceedings in the opening half of this week.

Both Tuesday and Wednesday disclosed few supporting bids in evidence. Trading volumes both days exceeded the million-share level and Wednesday revealed losses registered by over 65%

of all issues traded, plus 27 new 1946 lows.

• **Corporate Bonds**—The price movements in the corporate bond market since election day have not been as sharp as those in stocks. However, they have been similarly uninspiring. This is particularly true where the less-than-high-grade groups have been concerned. Not much of a performance is expected from these, so far as achieving higher prices is concerned, until the stock market starts advancing again, since it is normal performance for their action to approximate closely that of the equity issue market.

• **Municipals Drop**—Earlier indications (BW—Nov. 2 '46, p66) that a further downward adjustment of prices on the municipal market might be seen following the publication of election returns proved very true. Where 20-year bonds were concerned, prices soon dropped 2% on news that voters that day had approved the issuance of \$800,000,000 of new state bonus bonds, plus some \$200,000,000 of municipal issues designed to provide funds to pay for needed improvements. Some of these newly approved bonds appear likely to make their entrance onto the market very quickly.

More and more the opinion is growing that the end of the longer-term downward trend in municipal bond prices generally has not been reached. This will be especially true if G.O.P. legislators, as some of their leaders proposed this week, effect a cut in personal income taxes. Such a cut would



76
946
over-
market
as
they
is
han-
ned.
ected
higher
stock
e it
tion
uity
ions
ther
the
low-
urns
onds
oped
had
000
ome
de-
these
y to
arket
row-
erm
ond
ned.
D.P.
pro-
per-
ould
200
180
160
140
120
75
65
55
45
35
WEEK
1946

lower the value of tax-exempt obligations.

• **Realistic Attitude**—Where the new issues market is concerned, this week is disclosing somewhat greater activity than generally revealed lately. However, there are signs that conditions in that market are still in less-than-first-class shape. Atlantic Refining Co., in fact, felt it necessary to announce on Wednesday of this week that it would have to defer temporarily its contemplated offering of almost 30,000 shares of new preferred pending more favorable marketing weather.

It was likewise indicated that underwriters are still maintaining a realistic attitude when bidding for new issues. Consumers Power Co., for example, when earlier considering the sale of 500,000 shares of new common stock, thought it would be able to get at least \$20,000,000 for the block. By the middle of this week, however, it found that the best bid procurable netted proceeds of only \$16,769,950.

As a result, offerings only of bond issues and high-grade equities appear likely to be seen in the new issues market in the near future.

What of the Night—Now?

In the past, stock market participants and Wall Streeters generally, like a wide section of business interests, have rooted hard for Republican election victories. This year saw no change in that historic attitude. Even though there has been no spectacular price rally since election day, last week's Republican landslide was heartily welcomed by those groups.

Actually, the absence of a postelection outburst of exuberant buying enthusiasm isn't at all surprising. • **Optimists in Minority**—There are a few market seers today who still stubbornly insist that the sharp price shakeout since last May represented only a "normal" corrective move brought on by 1942-46 bull market excesses and should not be considered the opening phase of a bear market. This minor group has even been strongly urging the purchase of various stocks during the many recent periods of market weakness.

Most investors, traders, and advisers, however, haven't been looking at the near-term market outlook lately so optimistically. They are definitely bearish. It has been the reluctance of this group to make, or recommend, much in the way of new market commitments that for some weeks has been determining the direction of prices generally. • **What They Expect**—Bears and bulls appear equally certain that the 1946 election returns will eventually produce many important and beneficial changes in the business picture.

For example, they expect particularly:

- (1) Lower excise and personal income taxes (page 28);
- (2) What Wall Street considers a more equitable national labor policy;
- (3) Complete price decontrol (virtually achieved already) which will permit the demand-supply factor to prevail again;
- (4) Liquidation of those government agencies that have outlived their usefulness;
- (5) Clipping of the President's still drastic war powers;
- (6) Better understanding of business problems;
- (7) A sizable cut in federal spending; and
- (8) A balanced budget.

Today's realistically minded stock traders, however, think that benefits accruing from such developments can't possibly be felt by business generally for many months to come. And they don't expect election-engendered changes to produce any semblance of the "good old days" of the late 1920's.

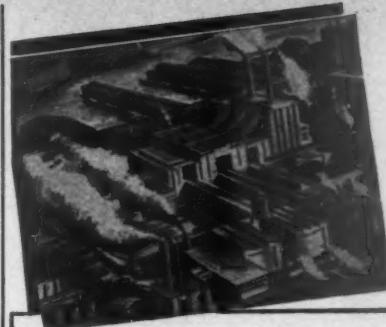
• **Worried Over Labor**—One particular factor holding back the market lately is firm-seated fears concerning labor. Uncertainties engendered by the threat of soft coal and packing house strikes soon, plus possible serious repercussions later in the steel, auto, electrical equipment, and other important industries because of stiff wage demands, are very definitely keeping many potential stock buyers on the sidelines.

Fears of actual work stoppages aren't causing all the worries. Equally potent is the belief that many managements, instead of strongly fighting wage demands, will capitulate easily, then raise prices to offset their higher costs and by so doing price themselves out of much of their potential markets.

• **Fear of Bump**—Having an equally dampening effect is the widely held belief that the nation is now close to the peak of an inflationary boom and is soon destined to experience a bump in business activity.

There are currently no fears that any setback that may appear in 1947 won't sooner or later be replaced by an extended period of industrial prosperity. Until present uncertainties are clarified, however, many smart market operators are playing their cards very carefully.

• **Loss Selling Expected**—It is quite possible, of course, that, for one reason or another, the market may be able to stage fairly sharp rallies before there is any decline in business activity. But much selling to establish tax losses is expected. And it is noticeable that most Wall Street advisers are mainly stressing improvement of portfolio quality through judicious switching operations rather than the taking on of any brand-new commitments.



THERE'S A PEACE BOOM IN THE BAY STATE

There's a big swing of INDUSTRY to Massachusetts! There's activity aplenty! Leading producers . . . in textiles, hosiery, electronics, plastics, prefabricated construction . . . are investing millions locating or expanding in Massachusetts. This development is a vote of confidence from private industry in the future of the country as a whole, and in Massachusetts in particular!

The *PLUS FACILITIES* of Massachusetts are good reasons why the peace boom is on! There's fast, economical transportation to all the major markets of the country . . . one of the best seaports in the world . . . research facilities second to none . . . skilled labor close at hand . . . and other reasons worth your knowing. Investigate the Bay State!



Write for the *ACTION BOOKLET*, "The Open Book," Massachusetts Development and Industrial Commission, 20 Somerset Street, Boston 8, Mass.
Dept. J

**THERE'S
ACTION
NOW IN
MASSACHUSETTS**

HEART OF NEW ENGLAND'S
MASS MARKET OF EIGHT MILLION

THE TREND

THE END OF PRICE CONTROL

Almost everyone who has reacted publicly to the end of price control has emphasized the great responsibility it places upon management not to abuse the power over prices thus conferred. The emphasis is well placed, particularly at a time when continuing shortages of many products will offer extraordinary temptations to charge excessively high prices.

• In emphasizing responsibilities, however, management should not be singled out for exclusive treatment. The end of price control places great new responsibilities upon organized labor—to exercise its power with a restraint appropriate to the new freedom. Also, if the final transition from wartime controls to a free economy is to be made in relatively good order, the general consuming public must recognize and discharge a special measure of responsibility. It is that of understanding something of the peculiar complexities which must be ironed out to get our economy back on a relatively even keel.

In his formal explanation of his decision to drop general price control, President Truman spoke of "distortions in production" which would be caused by clinging to the existing price controls after much of the economy had been freed from them. In his reference to distortions the President hit upon a dominant characteristic of the economy as it casts off from general price control. It is also a characteristic which, if it is to be effectively eliminated, must be far better understood by the general public than it is today.

• Take, for example, the matter of profits. In his report for the third quarter of this year, the director of the Office of War Mobilization & Reconversion remarked that "business profits, after taxes, are at the highest point in history." And, as a forthcoming Business Week Report to Executives on profits will indicate, they have not become worse since the director reported. But if being high is one dominant characteristic of profits, an equally and in many ways a more important characteristic is the distortion of them. Some industries are making lush profits. But as James H. McGraw, Jr., emphasized in a recent editorial calling for the speeding of decontrol, "Some of the most important industries are making little or no profits as they bump along on a production volume which fails to meet consumer needs and prevents attainment of maximum efficiency" (BW—Nov. 2'46, p33).

In this distorted situation there is almost a perfect basis for public misunderstanding. Some of the profitless or nearly profitless industries must have price increases to get back on their feet. The same thing is true of many individual products which, owing to vagaries of OPA pricing, have been priced so as to produce a net loss. To get adequate production, their prices must be increased. However, with profits as a whole "at the highest point in

history," there will be room for the contention that these necessary price increases really represent gouging. This notion is certain to be effectively exploited unless the public understands the ill-balanced character of the profit and production pattern much better than it does today.

• Another fertile field for public misunderstanding is presented by a distortion in the wage field comparable to that in the field of profits. As we pointed out in this space a week ago, there have been enormous variations from industry to industry in the increases in wage rates during the period of wage and price control. In some cases the increases have kept both wage rates and take-home pay far ahead of the increase in the cost of living, thus increasing the real wages of the workers in question. In other cases, however, increases in wage rates are lagging behind increases in the cost of living. When coupled with a shorter postwar work-week and less overtime in some of these industries, this lag leaves the workers in question with a lower real wage than they had during the war.

The leaders of these organized workers for whom increases in the cost of living have outstripped increases in wage rates can be expected to drive hard to have the gap closed. Also, unless there is a sudden and unexpected reformation in the practice of the art of collective bargaining, the leaders of organized workers in industries where there has been no such lag will press the increased cost of living with equal vigor as a justification for further wage adjustments. The fact will remain, however, that, insofar as an increased cost of living provides the justification for an offsetting increase in wage rates, the case varies enormously from industry to industry. Public understanding of that fact is an essential element of a salubrious environment for the coming round of wage negotiations.

• In emphasizing the fact that management is not alone in having its responsibility increased by the ending of general price control, we have not the slightest desire to minimize the challenge to management and the crucial importance of meeting it properly. If this is done, there will be no price increases which are not essential. And because of the generally high level of business profits, such increases should be relatively few.

No matter how responsible its performance, however, management alone cannot assure a smooth return from control to a free economy. It must have the cooperation of a responsible labor movement as well as public understanding of some of the superficially contradictory adjustments involved. Given proper discharge of this multiple responsibility, it still remains possible to get a badly twisted economy straightened out and set on a course of sustained prosperity.

ese
his
he
fit
y.

is
ole
his
ns
tes
ne
ke-
ng,
on.
ng
ed
in
in
he

om
ses
ive
ex-
ive
ies
ed
for
er,
he
he
lic
f a
ge

ne
en-
to
cial
ere
nd
its,

er,
om
on
er-
ust-
ple
dly
rse

946